National Institute on Drug Abuse

NATIONAL CONFERENCE ON DRUG ABUSE RESEARCH & PRACTICE

AN ALLIANCE FOR THE 21st CENTURY

January 12-15, 1991 • Grand Hyatt Washington • Washington, D.C.

CONFERENCE HIGHLIGHTS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

National Institute on Drug Abuse

National Conference on Drug Abuse Research & Practice: *An Alliance for the 21st Century*

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Conference Highlights

U.S. Department of Health and Human Services
Public Health Service
Alcohol, Drug Abuse, and Mental Health Administration

Office of Policy and External Affairs
Community and Professional Education
5600 Fishers Lane
Rockville, MD 20857

This publication was prepared for the Community and Professional Education Branch, Office of Policy and External Affairs, National Institute on Drug Abuse by CSR, Incorporated under Contract No. 271-90-2205.

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DHHS Publication No. (ADM) 91-1818 Printed 1991

DEPARTMENT OF HEALTH & HUMAN SERVICES

Dear Colleague:

These proceedings are the highlights of the National Institute on Drug Abuse's (NIDA) first National Conference on Drug Abuse Research & Practice: An Alliance for the 21st Century. The conference was designed specifically to promote the exchange of information among drug abuse researchers, community practitioners, and program administrators. The overwhelming success of the conference prompted us to publish these proceedings to supplement the dialogue initiated at the conference. Included in the highlights are summaries of the workshops, forums, dinner speeches, and plenary sessions that were presented during the 4 days of the conference held January 12 through 15, 1991.

NIDA has conducted and supported research since 1974 when it was established as an Institute of the Alcohol, Drug Abuse, and Mental Health Administration within the Department of Health and Human Services. NIDA's scientific research has enabled us to build a broad, dependable base of information on how drugs affect individuals. We are learning about the biological, behavioral, social, and environmental influences that place individuals at risk for drug abuse and dependence and strategies for preventing and treating these disorders.

It is important that the research findings presented at the conference and summarized in these highlights be brought to the attention of researchers, practitioners, and administrators who can promote their application to treatment and prevention programs. This is one more demonstration of NIDA's commitment to building an alliance between the drug abuse researcher and practitioner.

I hope these proceedings serve as a useful resource to you.

Sincerely,

Charles R. Schuster

Charles R. Schuster, Ph.D.
Director, National Institute on Drug Abuse

Contents

Summaries of Plenary Sessions

Epidemiology

Moderator: Charles R. Schuster, Ph.D., *Director, NIDA*

Speaker: Charles R. Schuster, Ph.D., *Director, NIDA*

Toward the goal of reducing the demand for drugs, NIDA seeks to understand the biological, behavioral, and social bases for addiction and the consequences of abuse and addiction. Placing particular emphasis on those persons who are most at risk, NIDA will continue to seek new preventive interventions and new treatments. Approximately 1,000 NIDA-funded grants (a fourfold increase since 1986) constitute 90 percent of the drug abuse research conducted around the world. In addition, more than 60 doctorate-level NIDA scientists conduct intramural research at the Addiction Research Center in Baltimore, Maryland, which also provides treatment benefits for the community.

One of NIDA's areas of concentration is the development of medications that will not only act as antagonists to block the reinforcing properties of drugs but also will correct the chemical imbalances created in the brain by prolonged exposure to drugs of abuse. These neurochemical effects often last long after substance abuse has been discontinued, causing intense craving. Medications for rapid reversal of chemical imbalances should be used to facilitate the individual's participation in psychotherapeutic counseling and other rehabilitation programs essential to developing drug-free lifestyles.

NIDA conducts and supports several national studies on the nature and extent of drug abuse. The results of these studies help direct the research agenda of scientists and clinicians toward specific areas in need of treatment and prevention strategies. The 1990 National Household Survey on Drug Abuse of persons age 12 and older estimates current U.S. trends in drug use and abuse. This survey does not represent the 2 percent of the population who are homeless or in prison. These populations have a disproportionate use of illicit drugs. However, this survey does yield averages for 98 percent of the U.S. population. The number of persons who used drugs within the past 30 days has decreased 44 percent over the past 5 years, from 23 million in 1985 to 13 million in 1990.

All drug use by persons between 18 and 25 years old, which had risen slowly between 1976 and 1979, has declined since 1985. However, cocaine use has not followed this pattern. Although the number of persons initiating cocaine use has decreased since 1985, there remains a hard core of addicts who continue to use cocaine in an extremely destructive manner. NIDA Drug Abuse Warning Network (DAWN) data show that medical emergencies from drug abuse—principally cocaine—peaked in October 1988 and have declined 30 percent since.

Drug use by 12- to 17-year-olds reflects this decline and, encouragingly, the percentage of youth who believe that even occasional cocaine or marijuana use poses great risk to the individual has increased. However, children 12 to 17 years old have not changed their minds about the risk of smoking 1.5 packages of cigarettes daily.

The household survey data reveal several problem areas. Cocaine use by hard-core addicts continues. Cocaine use by women of childbearing age poses great risk to the fetuses of pregnant women abusers. Drug use is lower among employed than unemployed persons (7 versus 13 percent, respectively); 62 percent of drug users are employed. Their use poses driving hazards to others en route to work and endangers coworkers on the job. Drug abuse lowers job performance and increases the absenteeism rate. Declines in drug use appear to be associated with race and ethnicity. The remarkable decline in the percentage of non-Hispanic whites who have used cocaine in the past month is not reflected in the data for Hispanics or non-Hispanic blacks, whose use did not decline significantly.

Among the other issues confronting NIDA is the role of drugs in the spread of AIDS and HIV infection. Of the more than 140,000 persons diagnosed with AIDS by September 1990, 31 percent of the cases were attributable to IV drug use. In addition, it is estimated that 1 million to 1.5 million people are HIV positive; many of these cases are attributable to high-risk sexual behavior and sex-for-drugs exchanges.

Drug problems wax and wane for inexplicable reasons. The picture is encouraging, and progress is being made. However, we must be constantly vigilant rather than complacent, recognizing that today's efforts and advances in research and treatment will be relevant to emerging problems in years to come.

Speaker: Enoch Gordis, M.D., *Director, NIAAA*

Alcohol is by far the Nation's number one drug of abuse. About 70 percent of U.S. adults use alcohol; approximately 9 million of whom are alcoholics, and 7 million more abuse alcohol but do not meet the criteria for alcoholism. Cirrhosis of the liver is the ninth leading cause of death, and alcohol accounts for approximately one-half of all motor vehicle injuries. Between 20 and 40 percent of all hospital beds in the country are occupied by people being treated for medical, psychiatric, and traumatic complications of alcohol use.

In 1990, for the first time, DAWN collected data on alcohol abuse that occurs independent of other drug use. These data show that more than two-thirds of all cases of drug abuse are attributable to alcohol alone; and one-third, to other drugs alone or in combination with alcohol. The DAWN data are not reflected in the household survey averages. In addition to being the direct cause of medical problems, alcohol use may have a role in marring the judgment of drug users. Family history of alcohol use is predictive of use of marijuana earlier and greater lifetime use of cocaine. The evidence of genetic vulnerability to alcohol use, a major focus of NIAAA research, is strong from twin and adoptee studies. Genetics and drug abuse as well as alcohol use is an area for future research.

Alcoholism is one of the leading causes of death among patients in methadone maintenance programs and after their discharge. Cirrhosis (mostly alcohol related) is the primary cause of death in treatment. Cirrhosis is higher in the black population and in older addicts with a long history of accumulation of toxic effects. The lack of both long-term studies and comparisons of alcoholism rates in methadone and nonmethadone programs contributes to misinformation about the actual extent of

alcoholism in these programs; however, alcohol abuse is less a function of methadone treatment than a function of that particular population.

Evidence for reciprocal variation between heroin use and alcohol use is conflicting, owing to the use of diagnostic criteria, rather than to measures of alcohol quantity and frequency of intake, and to the unreliable nature of self-reports. Followup of a large methadone maintenance program at Mt. Sinai School of Medicine showed a death rate of 20 per 1,000; 89 percent of these deaths were attributable to medical reasons; 35 percent, to violence. Addicts should receive drug treatment and alcohol treatment simultaneously, but outcome depends on other program services as well.

Although the sedative effect of combinations of drugs is accepted, more attention should be paid to the noxious effects of otherwise normal doses of Tylenol in alcoholics. Alcohol has the capacity to turn on a major route of drug metabolism. The microsomal system that normally detoxifies drugs can turn methadone and cocaine into more toxic substances, speeding the metabolic rate and clearance of methadone and forming a new cocaine derivative—an "ethyl cocaine" yet to be described by research. The pathology of liver disease is linked convincingly to alcohol use. Cirrhosis, which was limited in one study to only those methadone-treated patients who also were alcoholic, is likely to develop at least 10 years earlier in drug abusers who drink heavily; they will be affected by their late twenties and early thirties. Likewise, alcohol has two major roles in the immune deficiency of AIDS—an effect on T-cell function and an effect on judgments that results in risk-taking behavior.

The time when drug treatment programs trivialized the use of alcohol is apparently past. Contingency management, a treatment program that induces patients to stop drinking by requiring them to take disulfiram as a precondition to receiving methadone, has proven effective in reducing blood alcohol levels. Although not widely adopted, this means of treatment ought to be considered. Methadone maintenance does not interfere with 12-Step programs and is absolutely essential to preventing relapse to opiate use and the related threat of AIDS. It is equally important that drug programs not discharge patients on the basis of alcohol use. Evidence from several sources shows that the retention rate does not decrease because of alcohol use. Rather, drug abuse patients should be treated for alcoholism itself, either within that program or in a neighboring program.

In the drug or alcohol field, partial success is not failure. Although short of the goal of complete and permanent abstinence, reductions in the use of drugs and alcohol mean fewer health hazards, less crime, less expense, and less catastrophe for society.

Treatment

Moderator: Charles R. Schuster, Ph.D., *Director, NIDA*

Speaker: Alan I. Leshner, Ph.D., *Acting Director, NIMH*

The prevalence of co-occurring substance abuse and mental disorders is astonishingly high and must be taken into account in treatment decisions. Among persons with mental disorders, 29 percent also have a substance abuse disorder. Substance abuse disorders are found in 47 percent of schizophrenics and 24 percent of anxiety disorder patients. Likewise, among persons diagnosed as having substance abuse disorders, a high proportion also have mental disorders. For example, 53 percent of drug abusers and 47 percent of alcohol abusers also have mental disorders, and 72 percent of drug abusers have either a mental disorder or an alcohol problem. The risk of having a mental disorder is 4.5 times higher among people with drug abuse disorders.

These figures make comorbidity a major factor in diagnosing and treating people with either substance abuse or mental disorders. The high prevalence of comorbidity raises a number of treatment issues. First, the patient population must be accurately identified. Second, a safe and supportive treatment environment needs to be established that is both drug free and able to provide important services for mental disorders. Third, both mental health and substance abuse strategies are needed in the treatment setting, with techniques adapted to take comorbidity into account; for example, confrontation may be valuable in substance abuse treatment but may be counterproductive for mental disorders. Fourth, treatment professionals should take care of the presenting symptoms (substance abuse or mental disorder) and then focus on treatments that follow etiology.

Recent treatment effectiveness research supported by NIMH follows a four-stage treatment model with a focus on comorbidity. The treatment model is composed of the following stages: engaging patients; persuading them to accept long-term, abstinence-oriented treatment; actively treating them; and preventing relapse.

Speaker: Beny Primm, M.D., *Associate Administrator, OTI*

Treatment of substance abuse involves a continuum of care that includes educating patients about their substance abuse, intervening early to prevent people from moving into addictive behavior, treating existing dependency, and providing rehabilitative services to reduce the potential for relapse. Treatment should focus on three areas: the host, who must be evaluated for major underlying problems; the agent itself, since different agents have different pharmacological actions and require different treatments; and the environment of substance taking. Research shows that treatment works. Furthermore, every treatment modality works for at least some individuals. It is important to match patients with the appropriate treatment. Mere detoxification is not treatment. Treatment requires a lifetime commitment, and it works better if it is comprehensive.

A great deal of substance abuse in the United States is the result of social dislocations—poverty, homelessness, child abuse and abandonment, and

discrimination against minorities. These social dislocations must be addressed and remedied. OTI is responsible for expanding access to care, making care more attractive and effective, reducing recidivism and improving patients' functioning, and reducing the costs of substance abuse to society. The Office has made numerous initiatives in these areas such as improving administrative practices and management resources; providing information on incidence and prevalence; developing needs assessment technology; training and continuing professional education for practitioners, with emphasis on transferring research information to treatment practice; assisting States to develop statewide strategic planning capabilities in association with block grants; and promoting establishment of primary care and prevention of substance abuse in all treatment programs. Several specific initiatives in these and other areas are planned for 1991.

PREVENTION

Moderator: Charles R. Schuster, Ph.D., *Director, NIDA*

Speaker: Charles R. Schuster, Ph.D., *Director, NIDA*

The goal of NIDA's research program in drug abuse prevention is to develop a scientific knowledge base for policies and programs and to disseminate this knowledge to the public as well as to professionals in the field. The research focuses on the biological, behavioral, and social precursors to drug abuse and the evaluation of prevention programs.

NIDA's research grant portfolio includes the following:

- Studies of the effectiveness of comprehensive, multistrategy, community-based prevention programs such as the Midwestern Prevention Project;
- School-based intervention studies;
- High school and household surveys to detect changing perceptions about drugs;
- Family intervention strategies;
- Altering peer group influences among adolescents;
- Common etiologies for drug abuse and other problems such as teen pregnancy, dropping out of school, and running away;
- Biological risk factors for drug abuse;
- Workplace programs;
- Media prevention campaigns; and
- AIDS prevention.

Research by NIDA grantees has demonstrated that comprehensive, community-wide, multistrategic approaches are far superior to single-strategy approaches. School-based prevention strategies also are effective, especially when they occur in the context of a community-wide program. NIDA-sponsored surveys show the increased perception among children and adults that drug use is harmful. Despite no change in perceptions of drug availability, the percentage of children has increased who say that a single instance of cocaine use is risky. The percentage of those who say drug use by friends is acceptable has declined. There also has been a significant decline in the percentage of those who report using drugs. Other NIDA-supported research indicates that a high level of sensation-seeking may be a biological risk factor for drug abuse. For example, animals that are innately more exploratory are more prone to self-administer drugs. This behavior is correlated with innate neurochemical differences.

Speaker: Elaine M. Johnson, Ph.D., *Director, OSAP*

Grant applications to OSAP must have a firm foundation in existing knowledge, a rigorous evaluation component, a comprehensive multistrategic approach rather than a single approach, cultural sensitivity, and geographic balance. OSAP funds programs in three areas: demonstration, field development, and communication. Examples of OSAP-funded demonstration programs include High-Risk Youth, which is OSAP's flagship demonstration program and now involves about 200 projects; a program for pregnant and postpartum women and infants that includes prevention, referral, and treatment; the Community Partnership Program, aimed at developing an antidrug infrastructure in communities; and the Communications Cooperative Agreement, which allows local communities to develop media campaigns based on their own needs. OSAP's Field Development Program includes development of a National Resources Center that will provide a setting for meetings, training, and materials development for professionals; a national training system focused on faculty development and training of treatment and prevention specialists; and a conference grant program that provides grants up to $50,000 for conferences on drug abuse. The Communications Program includes NCADI as well as media campaigns aimed at specific populations. Programs funded by OSAP's Community Partnership Grant Program are required to involve a coalition of seven community components including the health, education, social welfare, and law enforcement systems; the private sector; and local or county government. Linkages also are required between prevention, treatment, and education components.

OSAP has close working relationships with ADAMHA's three research Institutes, NIAAA, NIDA, and NIMH, to foster program coordination and the transfer of research findings to practice. OSAP is part of an interagency cooperative group that includes other Federal departments interested in drug problems.

Drugs in the Workplace

Moderator: Charles R. Schuster, Ph.D., *Director, NIDA*

Speaker: Charles R. Schuster, Ph.D., *Director, NIDA*

The workplace has emerged as one of the most important sites for prevention programs. NIDA has been in the foreground of the activity, especially with respect to the Federal Government as a workplace. NIDA also is in the foreground of research on the efficacy of various programs to assist in the avoidance of drug/alcohol use and to attempt to identify and assist those involved.

Speaker: J. Michael Walsh, Ph.D., *Executive Director, President's Drug Advisory Council, Executive Office of the President*

Developing drug policies for the workplace is a technically complicated process requiring coordinated effort across all aspects of management. There are medical, legal, ethical, social, and moral issues to deal with. Industry has been required to bring all these functions together to address the problem.

There are four basic components to a comprehensive program: (1) a written and communicated policy; (2) a supervisory training component in which a key issue is how to get the impaired employee into an assistance program; (3) employee education with respect to health consequences and responsibility to help with the program, especially in helping fellow employees to get the assistance they need; and (4) a drug-testing program which is a critical but small part of an effective program.

At the Federal level, President Reagan's Executive Order of 1986 required all Federal agencies to develop comprehensive drug-free workplace programs. Subsequently, the Department of Transportation issued drug policy rules for the transportation industry, and the Nuclear Regulatory Commission issued regulations requiring the nuclear power industry to have a comprehensive drug-free workplace policy. In 1988 the Drug-Free Workplace Act was passed, requiring Federal contractors and grant recipients to have a drug-free workplace policy. The Act does not require employee education, assistance, or testing.

NIDA's effort began about 10 years ago. Studies had shown that drug abuse was a serious problem in the military, and congressional pressure was applied to force the military to take action. The military requested assistance from NIDA. At about the same time, there were major advances in technology for detection of marijuana use.

Media attention to the problem led to rising private-sector interest. The Federal Railroad Administration approached NIDA to develop a drug policy for the railroad industry. Requests also came from the airline, trucking, and public utility industries.

At that time, the primary interest of employers was to use technology to identify users and fire them. Subsequently, the philosophy changed to a helping hand approach in which the goal is to get users into treatment, help them resolve the problem, and return them to their jobs.

In 1986 NIDA was given the responsibility of writing scientific and technical guidelines for employee drug testing. The guidelines developed have become the standard by which all drug-testing programs are judged.

NIDA set out to develop voluntary standards for drug-testing laboratories. In 1987 DHHS was charged with developing a mandatory national certification program for laboratories performing drug testing for the Federal Government, and the task was assigned to NIDA. Standards were developed, and quality control inspectors were trained. By 1990 more than 60 labs conducting nearly 1 million tests per month had been certified. NIDA developed a drug-free workplace program that has become a model for the private sector.

The exponential growth in the number of companies developing programs will continue. The scope of testing is changing: major corporations have adopted a universal random testing approach, and employees prefer that all employees rather than only some be subject to testing.

Pending legislation would require the Secretary to develop standards and laboratory certification procedures covering all private worksite drug-testing programs in the United States. Both business and labor support a single standard; business supports a single standard because it would promote multi-State uniformity; labor supports a single standard because it would promote accurate and reliable testing.

From the technical perspective, revised drug-testing standards are anticipated as more accurate and more sensitive assays are developed.

Speaker: Mark J. Barnes, J.D., *Counsel to the Secretary for Drug Abuse Policy, Immediate Office of the Secretary, DHHS*

Workplace drug use is considered not only a problem but also an opportunity for intervention by the employer and society to reduce America's demand for drugs. The workplace is one of the best places to recognize a drug use problem and to intervene. The 1990 Household Survey on Drug Abuse shows that 68 percent of adult drug users are employed, 51 percent of these full time; 14.2 percent of full-time employed persons aged 18 to 25 and 8.5 percent of those aged 26 to 34 are current users. While marijuana and cocaine are the most common drugs used, others are used as well. No industry is immune, but rates vary from one to another.

Drug-free workplace programs have been challenged by some on a cost-benefit basis, and studies have addressed these challenges. A 1987 U.S. Postal Service research study on preemployment testing and job performance conducted in 21 sites nationwide produced 2 reports. The first report showed that those testing positive were fired at a rate of 13.3 percent, compared to a 9.5 percent rate for those testing negative. Absenteeism among those testing positive was 4.4 percent, compared to 3 percent for those testing negative. The second report showed a 47 percent higher firing rate and a 59 percent higher absenteeism rate for those testing positive.

A report in the *Journal of the American Medical Association* stated that, while positive preemployment marijuana and cocaine screening results are associated with adverse employment outcomes, the level of risk is much lower than some have previously estimated. This study, which sampled postal applicants in the Boston area, found that workers with positive marijuana test results have 55 percent more industrial accidents, 85 percent more injuries, and a 78 percent higher rate of absenteeism; workers with positive cocaine test results experience 145 percent more absenteeism and 85 percent more injuries.

After identifying drug users, a strong Employee Assistance Program (EAP) is essential for directing the employee to help. EAPs are facing a challenge on a cost-containment basis. However, cost-effectiveness also is an important consideration. The employer must (1) select an EAP with sufficient care; (2) evaluate the training and skills of those involved in the program, their certifications for counseling, and how well they work with the health care providers who perform the treatment services; and (3) be actively involved in evaluating the efficacy of treatment. NIDA can provide assistance in research on treatment effectiveness and EAPs.

In conclusion, drug-free workplace programs are essential. Individuals having a drug problem rarely initiate action on their own to get help, but instead are moved by a spouse, an employer, or another person.

AIDS and Substance Abuse

Moderator: Charles R. Schuster, Ph.D., *Director, NIDA*

Speaker: Harry W. Haverkos, M.D., *Acting Director, Division of Clinical Research, NIDA*

The number of reported AIDS cases increased rapidly from 1981 to 1988 and apparently slowed in 1989, only to increase again (by 24 percent) in 1990. The rates of AIDS infection do not vary greatly between IV drug users and homosexual men. The criteria for AIDS diagnosis were changed in 1987 to eliminate confirmation by biopsy, a change that led to a great increase in the number of such diagnoses among IV drug users in 1988. There also were changes in incidence in other populations in 1989, with hemophiliacs and other blood or blood product recipients showing a decline in AIDS infections and heterosexual adults and children showing sharp increases of 22 and 17 percent, respectively. AIDS incidence among blood recipients jumped back in 1990, however, and incidence was found to be about the same in IV drug users and homosexual men.

HIV seroprevalence, like AIDS, varies geographically in the United States. Point prevalence studies have found marked increases in seropositivity (i.e., infection). The increases have been as high as 5 to 10 percent per year among drug users. One problem with these studies is that they are based on volunteers in a population known for high refusal rates.

Only two studies have examined AIDS prevalence among non-IV drug users. One study found that one-third of patients with alcohol problems also had used drugs by injection at some time. Strikingly higher AIDS prevalence has been found in drug users not receiving treatment for drug problems compared with those who are. Seroprevalence declines with increased length of time in treatment and is significantly reduced in treatment groups receiving pharmacologic treatment for addiction (e.g., methadone), which is conducive to longer retention in treatment.

1.01 OVERVIEW OF ASSESSMENT AND DIAGNOSTIC TOOLS

Moderator: Jack Blaine, M.D.

Speaker: Bruce Rounsaville, M.D.

Drug abusers are heterogeneous. Despite knowing this, programs tend to offer the same treatment package to almost everyone. To ensure that information to enable treatment planning is reliable and comprehensive, systematic collection using a formal assessment tool saves time and facilitates staff training.

Alcohol and drug users should be matched to the particular spectra of treatment that best suits each individual's needs. Treatment outcomes will be multidimensional; appropriate outcomes vary from one patient to another. Assessments, first to screen patients and then to monitor the sequential process of treatment, may be performed by patients during brief waiting periods in the treatment schedule. Examples of such assessment tools include the Beck Depression Inventory, the Michigan Alcohol Screening Test, and the Addiction Severity Index (ASI). To enhance the validity of screening and ongoing treatment, planning assessment information may be obtained from interviews with patients and collaterals as well as from laboratory measures.

Important variables include a history of the quantity and frequency of drugs used, the severity of the drug dependence syndrome, and a range of problems related to drug abuse (e.g., medical, psychiatric, social, occupational, legal, and family).

Recommended to measure these variables, ASI, created by Thomas McLellan, reflects change on the basis of subjective and objective items pertaining to either the patient's lifetime or the past 30 days. ASI, in either computer or manual form for administration by clinicians or research assistants, is a user-friendly way to obtain mean change scores to help with clinical treatment planning, to aid research, and to evaluate counselors. The alcohol and drug dependence syndrome is the basis for DSM-III-R criteria substance abuse disorders in ASI, which, as a brief, simple, readily available severity rating scale, addresses various problems associated with drug abuse. The ASI psychiatric severity score is the most important predictor of outcome in a heterogeneous group of substance abusers.

Another kind of typology is the University of Connecticut's elaborate cluster analysis. This method of data analysis fits well with Cloninger's Type A (gradual onset and less family history of disorder) and Type B (early onset, family alcohol problems, and more severe disease) classification of alcohol abuse in patient matching, i.e., the more severe the abuse, the more intensive treatment required and the less severe the disorder, the less likelihood of relapse.

Speaker: Deborah Hasin, Ph.D.

A number of assessment instruments are available to measure not only drug and alcohol parameters of substance abuse but psychiatric disorders and other problems as well. Some of these interviews and the reasons for their development and use are presented below.

- The Schedule for Affective Disorders and Schizophrenia, which focuses on psychiatric—anxiety and bipolar—disorders more than alcohol and drug abuse problems per se, may be administered only by clinicians or paraprofessionals who have undergone lengthy, involved training.
- The Diagnostic Interview Schedule (DIS), an instrument for evaluation of research subjects, was designed for use by systematically trained survey interviewers and emphasizes the bases of alcohol and drug disorders. Its long-term retest validity is not particularly good in the general population. A self-administered, computerized version of the DIS that would eliminate interviewer bias may have limited use because it assumes literacy and ease of computer use, thus perhaps introducing gender bias.
- The Structured Clinical Interview for DSM-III-R (SCID) is a relatively brief tool for alcohol and other drug dependence problems (including a section on psychoses) that must be administered by mental health clinicians who then diagnose the patients. Long-term evaluation of the SCID has not yet been performed.
- The Alcohol Use Disorders and Disabilities Interview Schedule (AUDADIS) includes measurement of alcohol and drug abuse and affective, anxiety, and psychotic disorders for the past 12 months or the period prior to the past 12 months, using preliminary DSM-IV criteria. Pilot pretests in community research will be followed by further reliability testing scheduled for summer 1991. The fully structured AUDADIS, an outgrowth of dissatisfaction with DIS validity, does not require clinicians as interviewers.

A new version of the professionally administered SCID (SCID-2) will provide for more detailed scrutiny of alcohol and drug abuse problems and their relationship to psychiatric symptoms. It will be used by NIAAA to validate AUDADIS assessments of comorbidity. Both clinical and large-scale reliability tests are scheduled for the summer of 1991.

Speaker: James Sorensen, Ph.D.

Defined as information provided by clients in response to requests for specific information via questionnaire or interview, self-reports are far more effective than indirect means of obtaining information. They offer interviewers the flexibility to probe for clarity, to repeat misunderstood questions, and to choose questions on the basis of answers given. Self-reports are the only way of getting some information.

Self-reports are vulnerable to distortion, according to the respondent's limitations (personal or neuropsychological), the demands of the task (setting, number, and composition of questions), and the client's motivation and cognitive ability. Two reviews that cross-check self-reports against other indices of drug use are those of S. Magura and S. Mastow and their colleagues. Whereas self-reports are useful to the degree that they are truthful and accurate, they should be verified.

Although little can be done about what clients bring to therapy, clients' goals and their cognitive ability to benefit from therapy can be improved in several ways:

(1) Before the interview, review and use well-constructed questions, including memory devices and citing possible alternatives, posing more mundane questions first, and loading wording to indicate acceptability of whatever behavior the client might report. (2) During the interview, specify expectations and emphasize confidentiality, the importance of the information, and cross-checking. (3) After the interview, verify information and clarify discrepancies, if any. The use of self-reports to provide access to client information is applicable to HIV/AIDS as well as to alcohol and drug use. Alternatives to the self-report are biochemical markers (including urinalysis), collateral reports, and physical signs such as needle marks.

1.02 Administering and Interpreting Assessment Tools

Moderator: John Allen, Ph.D.

Speaker: John Allen, Ph.D.

Therapists now have available to them a rich array of psychometric instruments which measure a variety of drug abuse phenomena. To decide which instruments are clinically appropriate, it is necessary to clearly specify the patient management decisions which they may inform.

Psychological tests have unique advantages over intuitive clinical information gathering techniques. These benefits include cost, flexibility, standardization, objectivity, and credibility with the patient.

Five phases of patient management are distinguished: screening, diagnosis, triage, treatment, and followup monitoring. Examples are provided of formal instruments which can provide helpful information in making the clinical decisions which surround these stages of care. Specific instruments discussed include the Drug Abuse Screening Test, World Health Organization diagnostic instruments and the Diagnostic Information Schedule, the Clinical Institute Withdrawal Assessment scale, the Inventory of Drug-Taking Situations (IDTS), and the Addiction Severity Index (ASI).

The manner in which results are incorporated into clinical management strategies is as important as the choice of instrument. Counselors also must develop skills in giving patients feedback on their performance and in showing them how the results relate to their treatment plan.

Speaker: Frederick Rotgers, Psy.D.

Alcohol and drug use results in neurochemical effects on the brain. In addition to subjective effects, prolonged use affects the cognitive abilities and skills required for patients to benefit from treatment. Although the prevalence of cognitive deficits among users of cocaine and other drugs is unknown, 40 to 60 percent of alcoholics are estimated to be cognitively impaired.

Patients who appear relatively intact may, in fact, have significant deficits. Brief cognitive assessments should be built into screening, particularly for older patients (adolescents' abuse may not yet have had time to inflict measurable cognitive damage), severely depressed patients, patients whose recent use has been greater and

of longer duration, patients who use both alcohol and other drugs, and patients with prior head trauma or neurological disorder.

Cognitive assessment can assist treatment planning and, therefore, enhance outcome. For example, cognitively impaired patients will fare better in less cognitively oriented programs that focus on interpersonal support. It is worthwhile to identify patients unlikely to benefit fully from specific treatments and to avoid the expense of treating and perhaps re-treating patients unable to retain what they learn.

Speaker: Helen Annis, Ph.D.

IDTS, a 50-item self-report questionnaire under development, attempts to identify situational antecedents to drug use. IDTS helps with treatment planning for patients who face drug-taking situations. IDTS takes into account emotional triggers, which vary for different drugs used by a single multidrug user. This client-interactive computerized assessment tool, based on G. Allan Marlatt's eight categories of relapse situations, allows high-risk situations for clients seeking treatment to be determined for up to three drugs.

Clients, who find the color monitor very engaging, register their responses to the questions online. They receive immediate feedback via printouts of bar graphs representing frequency of drug use associated with particular internal and external stimuli.

The internal consistency and reliability of IDTS is moderate. A pencil-and-paper version of IDTS also is under development.

Speaker: A. Thomas McLellan, Ph.D.

Now 10 years old, ASI is a 40-minute semistructured interview based on the concept that addiction is best understood in terms of problems that led to or have resulted from substance abuse. ASI is designed to measure progress from admission through posttreatment followup, with emphasis on the nature and severity of patient problems in seven areas—medical, employment, drug/alcohol use, legal, family, social, and psychiatric—important to treatment planning. Failure to resolve these problems, which can be measured for the past 30 days or the patient's lifetime, may increase the risk for relapse.

Widely used for followup, ASI is sensitive to patient change and measures all areas independently. Despite the cost of interviewer administration of ASI, extensive use has demonstrated the need for adequately trained clinicians or technicians to conduct the assessment via interview. This also helps patients whose interest in answering is low. An ASI weakness is its failure to measure the quantity of alcohol or drugs used, although frequency of use tends to be associated with quantity.

The revised ASI will feature greater gender sensitivity in the legal and substance abuse (physical and emotional) sections as well as better family history and family and social problem sections to identify antisocial personality and other psychological dysfunctions. ASI measures the patient's ability to tap resources in the environment as well as provides information on route of drug administration and record of prior treatment. The new ASI will not address AIDS, which requires complicated

examination and laboratory tests for diagnosis; the Risk for AIDS Behavior Questionnaire already exists as a predictor.

The reliability and validity of ASI has been shown in the treatment-seeking population, and it is recognized as an important outcome measure; however, it may be less valid among psychiatrically ill, homeless, and prison populations. ASI norms for a variety of demographic factors, drug categories, and special populations soon will be published.

1.03 Treatment Program Self-Evaluation

Moderator: Frank Tims, Ph.D.

Speaker: D. Vincent Biase, Ph.D.

Self-evaluation is conducted by drug treatment programs to answer many questions including the following: What services are provided? What is the outcome of the treatment? How can outcome be measured? Who is being impacted by the treatment? How are resources being used? Such questions have practical and public policy applications.

A stable, established program committed to ongoing self-evaluation can benefit from the experience of other agencies in the community. The utility of self-evaluation depends on timely dissemination of the findings, implementation of special interventions based on the findings, and exploration and acceptance of the limitations of the findings (e.g., methodological problems).

Areas of self-evaluation include changes in client characteristics and how the program responds to changes throughout treatment, retention, readmission, and relapse patterns and differences in gender responses to treatment. Specific studies may include comparisons of treatment modalities, process analyses, and special needs studies.

According to the theory that addiction is a social learning problem, there are three types of clients: presocial individuals whose treatment goal is social development as well as attainment of drug-free status, asocial individuals who require social recovery, and antisocial (chronic) addicts who need to be resocialized. Because the treatment experience is a transition, the client's cognitive, behavioral, and attitudinal changes must be evaluated. Many different types of survey instruments can be designed to obtain such information from clients. One example of self-evaluation is to compare a program's relapsers and nonrelapsers regarding self-image, self-esteem, family stability, and moral and ethical value at intervals during treatment and posttreatment.

Speaker: Robbie Hayes, M.S.

Evaluation is a useful tool in making program changes and enhancing treatment efforts. Evaluation provides accountability for treatment provision, justification for continuing or increasing funding, reasons for reallocating resources and discontinuing ineffective services, motivation for staff by reinforcing accomplishments, and

feedback by which to redirect goals and objectives, improve responsiveness, and reexamine assumptions.

There are several different types of evaluations. A needs assessment identifies high-risk populations and shows whether intended populations are being reached. A process evaluation provides a description of the program activities so that the program can be duplicated elsewhere. Outcome and impact evaluations identify successful program areas and areas that need improvement.

A marriage must occur between scientific researchers and service providers. Researchers can avoid duplication of effort or improve their research instrument by seeking input from service providers, who often disregard research results because they have not been asked to participate in the research design and analytical process. Service providers can give useful advice regarding such issues as question topics and the cultural sensitivity of survey instruments.

Researchers should design instrument questions to address particular evaluation areas and share findings with service providers in a timely manner. Personnel must be adequately trained to administer instruments correctly and in an unbiased manner. The community must be trained to understand the role of researchers.

Speaker: Norman Hoffman, Ph.D.

Process evaluation consists of monitoring what treatment is being given to patients and how patients are responding throughout treatment; it should be conducted internally by every program. Outcome evaluation, on the other hand, concerns what happens following treatment. Because of the expertise required and its time-consuming nature, cost, and credibility, outcome evaluation can be conducted better by outside evaluators. Also, access to a large data base such as that of Comprehensive Assessment and Treatment Outcome Research (CATOR) offers programs the advantage of large numbers, thus precluding small-sample distortion of results. Outcome evaluation data can be selectively used to prepare reports for appropriate audiences, including employers, public agencies, and legislators.

In the CATOR patient history, outcome is a measure of 20 symptoms that are similarly distributed for alcohol and cocaine users, but which cluster in a lower range for marijuana users. Data on retention and relapse indicate outcome related to the drug of abuse, treatment, and participation in aftercare programs. One out of seven people leave intensive residential treatment programs without being totally convinced they are chemically dependent. Cocaine users who prefer treatment by professionals, in contrast to alcoholics and other drug users who prefer self-help groups, have lower overall outcome than other substance abusers. For adults, the data show notable gains in health care and reduced absentee rates for employed drug abusers over the past decade. Lower rates of on-the-job injuries translate into decreased workmen's compensation—a positive political message.

Data on adolescents show similar trends favoring outcome for those who attend treatment sessions. Among problems measured in adolescents are suicide attempts (10 and 28 percent in boys and girls, respectively, over the past year), depressive syndrome (depression plus three other DSM symptoms), learning disabilities, legal problems (one-third of the boys have three misdemeanors and one felony), and sexual

abuse (abused girls and boys both tend to take a greater variety of drugs and to use them more frequently). Outcome measurement shows that multifaceted programs may not be adequate to meet the needs of this multiproblem population.

Speaker: Dwayne Simpson, Ph.D.

Program evaluation is not uniformly performed, in part because staff lack training; however, it is essential for effective programs to evaluate drug use patterns and what predisposes people to use drugs (e.g., biology/genetics, psychology/cognition, culture/environment, and peer/social pressure) as well as the process of treatment and longer-term outcomes. Long-term studies indicate the value of monitoring retention. Program philosophy, program implementation, quality of staff, rules and sanctions, and service delivery all relate to patient decisions to stay in treatment or drop out.

Effective program self-evaluation begins with defining long-term goals and short-term objectives (perhaps setting target dates as well) and deciding how to measure treatment. A data system should be developed to measure evaluation criteria, to capture required information, and to allow comparisons between treatment groups or changes over time. Data collection instruments should be formatted and pretested to ensure that the components facilitate response to needs. The data obtained, thus, provide feedback to staff. A report to the community, State, or board of directors should present demographics of the program population and the elements of the program. Such a report should cover at least 1 year to present a broad enough picture.

A therapeutic community evaluation, DATA Project, comprised (1) assembly of a complete user-friendly data system and (2) development of the following: a handbook; questionnaires for intake and patient self-rating; a one-page counseling session form; monthly client treatment evaluation with ratings of counselors, the agency, the treatment process, and client satisfaction over time; counselor evaluation of client progress and description of treatment strategies; an overall clinic tracking form, including sessions missed and urinalysis results; and a followup form. Elements of any of these could be used appropriately in other evaluations. Assessment of counselor records, background, education, certification, and methods is recommended to identify organizational ability, which is important for data collection.

Successful posttreatment evaluation research, which should be performed by separate followup fieldwork staff conducting face-to-face interviews, requires adequate resources and careful attention to selection of outcome criteria, definition of therapy groups, development of sampling strategies, and establishment of a system for quantifying data in order to help elucidate what changes a program should undertake.

1.04 Models and Methods for Patient Matching

Moderator: A. Thomas McLellan, Ph.D.

Speaker: Arthur Alterman, Ph.D.

Although declines in Addiction Severity Index (ASI) drug abuse variables were significant for 120 cocaine-dependent men who received 30 days' treatment in both day hospital and inpatient programs, there was no significant difference in outcome between day hospital and inpatient settings as measured at 4 months after intake. Likewise, after 7 months the intergroup differential was not significant; however, the inpatients had slightly higher employment rates. Two major predictors of successful outcome for the outpatients were more serious drug problems at intake and fewer concomitant alcohol problems (60 percent of the patients also qualified for alcohol treatment). Among the independent variables not predictive of successful outcome after 4 months were antisocial personality and lifetime diagnosis of major depression; however, patients with serious psychiatric or medical problems (i.e., those who were ineligible for day treatment) or poor social stability were excluded from the study.

Inpatients and outpatients differed only in more prior drug abuse treatments for inpatients. Treatment completion rates were 88 and 52 percent, respectively. Followup rates were about 90 percent for both groups. Outcome prediction is more difficult with increasing time away from entry into treatment, and further analysis of individual variables is needed.

Speaker: Helen M. Pettinati, Ph.D.

Comparing intensive treatment lasting 4 weeks for inpatients and a minimum of 6 weeks for outpatients was the focus of the study presented for discussion. Paradoxical results in the early stages following treatment for dependence on alcohol or a combination of cocaine and alcohol indicate the need to delineate clinical profiles of treatment failures and to use several outcome measures to evaluate inpatient versus outpatient treatment. Of the 227 middle to upper socioeconomic status patients in this private psychiatric setting, 81 percent were Caucasian; the average age was 33.1 years; the average number of years of education was 13.3; and there was a 3 to 1 male-female ratio. The cocaine users (58 percent, freebase; 6 percent, IV; 36 percent, intranasal) were generally younger, had less education and lower socioeconomic status, and included more blacks. In selecting criteria for matching to inpatient treatment, the study used two frequently cited clinical indicators that have received some empirical support: high psychiatric severity and high family social problem severity. Patients who had clearly failed previous programs within 6 months were ineligible for this study.

The difference in failure rates—38 percent of outpatients and 12 percent of inpatients—indicated that significantly more outpatients were mismatched to their treatment setting. Failure included attending less than one-half of the required treatment sessions, exhibiting no change in use regardless of attendance, leaving treatment against medical advice, and early discharge for violation of program principles. The programs were completed by 86.2 percent of inpatients compared

with 57.1 percent of outpatients. Preliminary analysis showed that 1-month abstinence rates for alcoholic completers did not differ significantly between programs, but at both 1 and 6 months posttreatment, relapse (defined as re-meeting DSM-III-R criteria or admission to an institution) was higher among inpatient than outpatient alcoholics who completed the program. Lower completion rates among outpatient cocaine users and incomplete followup data precluded immediate statistical analysis. While the overall goal of the project is to evaluate the cost-benefit ratio of the type of addiction treatment setting, inpatient versus outpatient, we hope to expand upon our previous work.

Speaker: George De Leon, Ph.D.

There is no strong evidence that patients can effectively be matched to treatment modalities. Prediction studies have shown no consistency in terms of retention in treatment or treatment outcome. The complexity of drug abuse as a whole-person disorder challenges the validity of the matching concept: variables that may differentiate patients with respect to their reaction to treatment are unknown or ignored. Furthermore, a rigorous test of the validity of matching is not feasible, and the ethics of assigning patients to treatment against their will or withholding treatment from patients must be considered. High attrition rates and sample size contribute to random model assignment error. Sources of variance that make matching particularly hazardous are treatment-related issues including program differences (philosophy, staff experience, program resources, and staff training), vague protocols, and the fidelity of their implementation.

Client-related issues also contribute to the complexity of patient matching. Most drug abusers are not at the extremes of psychiatric disorders and criminality but represent various levels of social and emotional dysfunction. The recovery process itself is the key to matching. Recovery-oriented approaches focus on stages of change—knowing not only *who* the clients are but *where* they are, empirically and theoretically, in the change process and knowing what they need next. Effecting change in terms of a recovery path vector may mean abandoning the concept of modalities in favor of new interventions. Dynamic variables such as motivation and readiness for change to the next step in the recovery process should be included in the client description.

Speaker: A. Thomas McLellan, Ph.D.

Patient matching was begun as an attempt to use statistics to determine which patients would fare better in which treatment programs. However, measurement of outcome is difficult: it must be shown not only that the patient gets better but that the improvement results from matching.

Within a selected population, different variables will be important for different types of matching. Measurement of how programs differ in the amount of various components provided to the patient may be used in a quantitative profile based on patient responses concerning needs and services in seven ASI areas—medical, employment, alcohol, drug, legal, family, and psychiatric problems. While such a profile enables comparison of inpatient and outpatient programs, differences in

programs do not imply an indictment of either, although programs that offer few services may signal unaddressed problems. Also affecting outcome are different kinds of therapists and the variability of their assignment of patients to treatments.

1.05 OVERCOMING BARRIERS TO DRUG ABUSE TREATMENT

Moderator: Susan L. David

Speaker: Susan L. David

NIDA has implemented a 3-year project to assist local community groups and drug treatment providers in their efforts to educate the community about treatment benefits and to establish new drug treatment facilities. Initially, the project examined the community's concerns and feelings about drug abuse, drug abusers, and drug abuse treatment programs and facilities.

Speaker: Lynn J. Cave, M.A.

To learn about barriers to community receptiveness in establishing new drug abuse treatment centers, NIDA examined the problem from a broad perspective by conducting a literature review, interviewing individuals from State agencies that oversee drug abuse services, consulting with treatment experts from around the country, conducting focus groups of local residents in urban and suburban areas, and holding a meeting of State and local representatives.

The findings show that community residents frequently had negative attitudes about drug abusers. These attitudes, coupled with limited funding, were the major barriers to establishing drug abuse treatment facilities. Common stereotypical sentiments about drug abuse and treatment facilities include the following: (1) "Other people use drugs—not the people living here"; (2) "The crime rate will increase"; (3) "Our property values will decrease"; and (4) "Not in my backyard." Many of these prejudices are based on lack of understanding about drug addicts, treatment, and recovery.

Local residents' lack of understanding can be improved by educating them about the value of treatment and the benefits that a drug abuse treatment facility can bring to the community. People need to know that drug abuse treatment does work and that addicts can and do recover. Residents need to know that treatment centers can be well supervised, accountable to the community, safe, and reputable; that treatment facilities can fit into the neighborhood by blending with local architecture; that treatment can save taxpayers' money in the long run; that untreated drug abusers living in the community pose a much greater danger than those recovering in a supervised treatment setting; and that the centers can create jobs.

Messages like these were used in print and audiovisual materials developed to support the project. A videotape documentary, pamphlets, a resource manual, TV media, and print public service announcements (PSAs) were the tools used to build support for drug treatment within communities. PSAs can create a climate of heightened awareness about drug abuse and the need for treatment and treatment

facilities. PSAs also have the potential for empowering people to take action to support the expansion of treatment services in the community.

Speaker: Audrey Yowell, Ph.D.

The project provided technical assistance to providers who have funds to open new facilities and to communities who want to build support for treatment via an educational program.

Treatment providers who have successfully "sited" new treatment facilities consistently have taken most or all of the following approaches:

- *Assess the community.*—Find out who your friends and enemies are and what the nature and level of drug abuse is in the community;
- *Make key contacts.*—Talk with community leaders identified in the assessment phase, and encourage radio and TV stations to play the PSAs;
- *Select the site carefully.*—Find an appropriate location in an area least likely to generate opposition, and check out the neighborhood for any potential barriers;
- *Prepare to meet zoning requirements.*—Identify requirements early in the campaign, be well prepared for any required hearing, and bring your supporters;
- *Listen and respond to community concerns.*—If people are concerned about property values, assure them that the facility will fit in with the architecture of the neighborhood, and if they are concerned about safety, reassure them by describing your security measures;
- *Select an appropriate siting strategy ("high" or "low" profile or somewhere in between).*—Develop a plan for responding to any media attention;
- *Develop a support and volunteer network.*—Help from others will make the job easier;
- *Educate the community.*—Use PSAs, pamphlets, and videos, and maximize person-to-person contact;
- *Be honest with the community.*—Avoid glossing over the truth, and have a good relationship with people like your realtor; and
- *Maintain positive relationships with neighbors and community.*—Participate in neighborhood events, and provide services, such as prevention and drug education, to your community.

It may not be necessary to implement each of the preceding ideas, but they should all be considered.

Speaker: Peter Hayden

Turning Point in Minneapolis, Minnesota, began in 1976 as a halfway house and has expanded to include programs for primary treatment, mothers and babies, HIV outreach, and job development. The facility is located in a black, middle-class neighborhood and depends on alumni support and encouragement. This support provides consistent reinforcement to clients from people who know what it takes to recover from drug addiction.

An effective treatment facility like Turning Point requires a committed staff that goes about the business of building a solid reputation. It is critical to let people know what treatment programs are doing and how well they are doing it. Toward this end, it is smart to use every vehicle to make yourself visible. Success is not given—it is earned.

The problems faced by current treatment programs include: (1) people who enter treatment have a fundamental distrust of the service provider, (2) referral systems often neglect the treatment needs of special populations, and (3) funding patterns do not facilitate prevention services in minority treatment programs. Solutions to these problems might include strengthening the ability of the program and staff to change behavior, identifying ways to increase the personal empowerment of clients, and building a network of family and friends.

The socioeconomic status of many people of color makes drug abuse treatment difficult. This difficulty is compounded by laws that are inconsistent, treatment facility governing boards and staff that are insensitive to cultural issues, and the media's glorification of the fast life.

1.06 Retention in Drug Treatment: What Are the Retention Rates and Who Are the Dropouts?

Moderator: George De Leon, Ph.D.

Speaker: Dwayne Simpson, Ph.D.

Retention rates which differed across major modalities were systematically related to drug use and other outcome criteria in the Drug Abuse Reporting Program (DARP). Longer retention was predictive of better outcomes, but clients receiving less than 3 months' treatment did not do better than untreated clients.

At 4-year followup, DARP patients who completed treatment and never returned to treatment had among the best outcomes in terms of drug use, criminal behavior, and unemployment. After 12 years, three-fourths of the stratified random sample had spent time in methadone maintenance programs, 45 percent in therapeutic communities (TCs), and 31 percent in outpatient detoxification programs. Of those clients, 58 percent were in treatment programs (59, 21, and 20 percent in methadone, TC, and outpatient detoxification, respectively) when they last quit drugs. Overall, approximately 50 percent of the DARP clients returned to treatment within 3 years.

Research continues into the faction that relates to retention, e.g., biological/genetics, cultural/environmental, psychological/cognitive, and social/peer domains. Especially important in future drug treatment will be the assessment of during-

treatment activity and how it is associated with posttreatment outcome, i.e., participation in programs (and why patients stay in or leave them), client motivation, compliance with rules, drug use, crime, employment, and psychological adjustment.

Speaker: Robert Hubbard, Ph.D.

Retention—clearly one of the major factors predictive of posttreatment outcome—is defined as a client's stay in a particular program. The Treatment Outcome Program Study showed that a client must spend a long time in any of three modalities to significantly reduce drug use.

More than 6 months in an outpatient drug-free program or more than 1 year in a residential program greatly increases individuals' odds of full-time employment in the first year posttreatment and lowers the odds of committing predatory crime. Studies of time in treatment show that individuals who cross a 3-month threshold have a much higher rate (approximately 50 percent) of completing treatment, or at least 1 year of treatment, regardless of treatment modality.

Efforts for early retention are critical. Formal intensive involvement of the criminal justice system has been effective in increasing retention among outpatient drug-free and residential program participants. Future studies will focus on how the stages of treatment, which may vary by patients and treatment model, affect when to begin rehabilitation and reentry and how to prevent relapse. Future studies also must carefully define how the length of stay interfaces with both previous treatments and what will happen after treatment.

Speaker: Charles Morrison, M.P.H.

Detoxification programs are the most utilized drug abuse treatment modality. They provide the client with an opportunity to consider motivation, suitability for treatment, and other "reality" issues such as housing and employment. Nevertheless, the characteristics and outcomes of clients in detoxification programs have been studied far less than the characteristics and outcomes of clients in other treatment modalities.

Length of stay by demographic and behavioral characteristics was considered for 567 clients participating in a 21-day residential detoxification program. There were no differences in length of stay by sex, age, income level, route of administration, or number of previous treatment experiences. However, fewer Hispanic clients completed the program than white or black clients. Followup of 367 clients was conducted 3 to 6 months after they were admitted into the detoxification program revealing that 30 percent of the clients participated in a residential treatment program during the followup period. A higher percentage of those who completed the program than those who dropped out reentered residential treatment and participated in 12-Step programs during the followup period. Also, completers had lower rates of relapse and a longer time to relapse than did program dropouts. Detoxification programs are an important drug treatment modality that merit increased research and understanding.

Speaker: George De Leon, Ph.D.

Analysis at 2 years posttreatment shows that outcome is directly related to length of stay in residential TCs. Dropout rates are critical in the first 90 days, especially the first 30 days, and even, perhaps, the first 14 days. Except for the severe psychopathology and criminal pathology, client characteristics—such as age, sex, race, and even primary drug use—are not good predictors of dropout. Clients' reasons for dropout have not been well researched.

Research findings were presented on enhancing retention in TC treatment. Three interventions were implemented in the initial days of treatment to show early dropout rates: (1) adding six to nine 20- to 25-minute sessions focusing on changes in the regular routine, (2) orienting families of new admissions to TC treatment to increase their involvement in keeping clients in treatment, and (3) enlisting senior TC personnel (TC professionals) to orient new admissions to the TC regime of weekly seminars during the first month of treatment.

The study concluded that the interventions significantly reduced early dropout, and that the experimental effects were greatest at 30 days and persisted through 365 days in the Senior Professor conditions. Although the interventions were effective in reducing early dropout, the study found that refining the interventions could produce even more impressive results. In particular, the interventions may be adapted for use throughout primary treatment to facilitate the client's transition through various stages of the recovery process in TCs.

1.07 Retention in Drug Treatment: What Are the Reasons for Dropouts and How Can We Improve Retention?

Moderator: Mary Jeanne Kreek, M.D.

Speaker: Mary Jeanne Kreek, M.D.

Of 2 million persons in the United States who have used heroin at some time, about 500,000 are "hard-core" heroin addicts. A "hard-core" addict is defined as one who uses heroin or some other short-acting narcotic in regular, daily, multiple doses developing tolerance, dependence, and drug-seeking behavior. Approximately one in four persons exposed becomes a heroin addict.

Chronic use of short-acting narcotics produces euphoria or pain relief, leads to tolerance and then physical dependence, and, upon withdrawal, produces a cascade of physiological symptoms that are unpleasant to debilitating and, in some cases, life threatening. The abstinence syndrome may be protracted 6 months or longer after cessation of all opiate exposure. Persistent craving contributes significantly to a return to narcotic use. Although tolerance and physical dependence are demonstrable with animal models during chronic administration of opiates, searches for biochemical and molecular definitions of the biological basis of tolerance, physical dependence, and craving demand much more basic laboratory and clinical research because of their powerful roles in patterns of narcotic use (tolerance) and relapse to narcotic use (craving).

If pharmacology alone could explain addiction, removing the source of the problem, i.e., physical clearance of the drug, would preclude relapse. Many other factors—primarily genetic, neuroendocrine, and metabolic as well as environmental, social, and behavioral (including comorbidity)—play a role. Methadone maintenance is effective for the treatment of opiate addiction because of its oral efficacy and its long duration of effect (half-life, 24 to 36 hours) as compared with a very short duration of action of heroin (1 to 2 hours or longer). When given to tolerant/dependent persons in appropriate steady maintenance doses, methadone prevents symptoms of drug hunger and blocks the euphoric effects of any illicit, superimposed, short-acting narcotic. Its mechanism of action is in providing a steady state of opiate at critical opiate receptor sites in the brain which allows for normalization of behavior and physiologic functions, such as neuroendocrine and immune function, which have been disrupted during cycles of heroin addiction.

When given optimal doses of methadone (60 to 120 mg per day for most patients) for 6 months, fewer than 10 percent of patients will continue to abuse heroin; however, relapse to allow opiate use occurs in 70 to 80 percent of those who leave methadone maintenance treatment. Thus, increasing retention in a methadone program correlates with increasing success in treatment outcome. The dose of methadone must be stable, not varied on the basis of some reward or punishment system. Also related to a program's success—via retention—is the availability of adequate numbers of well-trained, caring staff in diverse disciplines of care and rehabilitation.

Speaker: Elizabeth T. Khuri, M.D.

The effectiveness of adequate doses of methadone, which is central to the Cornell Adolescent Development Program, is enhanced by counseling. Initially designed to treat younger hard-core heroin addicts, the program serves a range of patients (55 percent male and 45 percent female) with opiate dependence and serious cocaine problems (26 percent, down from 55 percent at intake), alcohol problems (12 percent), and severe psychiatric disorders (33 percent) as well as secondary heroin addiction. One-half of the patients are Hispanic, and 10 percent are black. Patients, whose average age was 27, stayed in the program from 5 to 20 years.

This program, which has no waiting list and is not perceived as a problem by the community, offers psychiatric diagnosis and treatment, flexible hours to accommodate patient work schedules and lifestyles, counseling, and adjustment of methadone doses. Dosage averages 70 mg but ranges from 5 to 120 mg. Milieu therapy is combined with methadone. Groups are based on general psychotherapy, focusing on alcohol or cocaine dependency and other topics that are relevant to patients' interests and treatment needs. Groups include, for example, Spanish-speaking and men's groups as well as issues/current events, arts and crafts, vocational and prevocational, and literacy and adult education groups.

Most important to the effectiveness of the program is staffing, which includes recovering addicts with credentials. Ten core members average 10 years' service (ranging between 2 and 20 years). Caseloads are 30 to 1. Continuing education is required as a means of monitoring proficiency and preventing staff burnout.

Patients rated several factors as important for retention: ease of entry, location, having good people to talk to all the time, and having an enlightened policy toward polydrug use. Factors cited by staff include patients' access to inpatient treatment and detoxification from other drugs while on adequate doses of methadone, good medical care, resocialization programs, and the availability of a range of services, both onsite and via linkage with other human services organizations.

Speaker: J. Thomas Payte, M.D.

Program elements rather than patient problems may be the crux of the dropout problem; however, attracting patients may be a more significant problem than retention. Without initial engagement, which depends on addicts' perception of the treatment system, retention strategies are moot.

An accessible, knowledgeable, and accommodating staff can eliminate barriers. Even the anticipation of negative treatment may be adequate as a deterrent until a patient's situation becomes dire. On the other hand, respect for the patient, a minimal wait, and an overall atmosphere of concern increase retention. The word spreads, and there is an attitudinal shift favoring program entry. Program managers should work with staff to focus on this approach and aim for low staff turnover, another key to maintaining client relationships.

Methadone doses should be neither reduced as punishment nor increased as reward. The American Society of Addiction Medicine stresses that dosage should be individually determined on the basis of clinical factors and consultation with the patient. Treatment, which must be affordable, should minimally disrupt the patient's life—the longer the treatment, the less disruption is acceptable. Programs must operate during hours that will foster patients' employment and contribution to society. Qualitative—not just quantitative—program changes are crucial to attracting and retaining others among the 75 to 85 percent of addicts who currently are not in treatment.

Speaker: George Woody, M.D.

While most data on dropouts are from studies of publicly funded methadone programs, the available data are probably applicable to other settings. Getting people into treatment is necessary before trying to improve retention. Some program characteristics merit special attention, in addition to program issues such as pharmacological support for detoxification, methadone dosage, accessibility, and appropriate setting (e.g., inpatient rather than outpatient treatment for homeless or otherwise unstable clients).

Speed of intake may be important for attracting patients to a program. One study of opiate-dependent subjects found that a rapid intake process (1 to 2 days) retained more applicants for treatment than an intake process requiring 3 to 4 days.

The range of services available also can make a program more attractive to patients. Quantitative measurement of service delivery via the Treatment Services Review, a new instrument under development by Thomas McLellan, can highlight areas of service delivery that then can be addressed for better outcome.

Program cohesiveness and a proper balance between structure and support are worthy of constant attention. A rule-oriented approach that increases dropout must be weighed against undue permissiveness and lack of structure. Patients most likely to be disruptive, to drop out, or to be suspended are usually those with greater psychological impairment. Some reasonable attempts to treat the patient's accompanying problems can improve retention and outcome.

Therapists vary in their effectiveness. Staff attitudes, such as the quality of the helping relationship, have been more closely linked with positive outcome than technique. Staff retention also is important, and the assignment of extra therapy to a patient with psychiatric disorders may provide additional gains. Thus, the combination of maintaining a good relationship with the patient and the skillful application of appropriate techniques provides the optimal environment in which the patient can progress.

Speaker: Linda Lewis, M.A.

When programs can provide a full array of treatment, patients are more likely to stay in treatment long enough to accomplish change. Programs must emphasize preparation for leaving treatment, provide knowledge on relapse prevention and plans for aftercare, and foster independence by allowing clients time to correct mistakes in the process of building bridges to the community. Patients must gain tangible assets from the treatment experience—if not monumental intrapsychic change, perhaps health care or education.

Crucial to effective programs is a strong program philosophy oriented toward clients needs as well as toward balancing structure and support, hiring caring staff, and setting and consistently maintaining policies and procedures. Comprehensive assessment of patients and their changing needs must continue from intake throughout treatment. Functional assessment can help prioritize patient problems so that immediate needs will be given attention first.

Staff must be trained in client management skills. Good supervision in the form of clinical consultation provides support for staff working directly with clients. Case staffings or other sharing mechanisms can help staff by providing a means for reviewing patients and learning which approaches work for which clients. Good data collection and management can help managers evaluate and revise programs and can facilitate the transfer of technology from research to the treatment arena.

1.08 Psychotherapeutic Interventions

Moderator: Dorynne Czechowicz, M.D.

NIDA supports a variety of research in psychotherapeutic and pharmacotherapeutic interventions, ranging from studies of behavioral therapy, drug abuse counseling, family-based interventions, and relapse prevention strategies.

Speaker: Edward J. Khantzian, M.D.

Psychotherapy is an important, if not essential, part of the recovery process. To be effective, however, the issues of safety and control must be addressed initially and in an ongoing way at the same time that we target the psychological vulnerabilities that predispose individuals to become dependent upon and relapse to addictive substances. Once an individual abstains, individual and group psychotherapeutic approaches can effectively treat the psychological vulnerabilities by focusing on the self-regulation vulnerabilities that govern and perpetuate addictive behaviors. A modified psychodynamic approach that incorporates supportive and expressive features can be employed in individual and/or group therapy to access and modify addicts' self-regulation deficits and vulnerabilities involving feelings (affects), self-esteem, relationships, and self-care.

Speaker: George Woody, M.D.

The presence of clinically significant psychiatric symptoms adversely affects the outcome of drug treatment. Methadone treatment alone is less effective without good counseling and psychotherapy. Several NIDA-sponsored studies have examined the association among psychiatric disorders, addiction, and treatment outcome. These studies involved the evaluation of drug-agonist and drug withdrawal effects and how the effects influence psychopathology. Drug-induced psychiatric disorders vary according to the nature of the drugs used. Independent psychiatric disorders may predate drug use or be accentuated by agonist or withdrawal effects. The types of psychopathology seem to differ; depressive/anxiety disorders and antisocial personality typically are associated with heroin dependence, while anxiety/panic disorders or paranoia typically are associated with cocaine. Sometimes, drugs will cause persistent psychiatric disorders. The impairment associated with persisting disorders can be difficult to determine in some patients and may last 2 years or longer, though it usually improves with time spent abstinent.

In a treatment study of a Veterans' Administration hospital, 110 male, nonpsychotic opiate addicts receiving methadone were randomly assigned to one of three treatment conditions:

- Drug counseling alone which was peer oriented and concentrated on identifying needs and delivering concrete services for drug and social problems;
- Drug counseling plus supportive/expressive therapy which focused on human relationship themes, dependence and control, and life problemsolving; or
- Drug counseling plus cognitive/behavioral therapy which stressed changing negative beliefs and self-image.

Most of the patients in this study had experienced psychiatric problems. Depressive disorders (major or minor) were present in about one-half of the patients; another 25 to 45 percent exhibited antisocial personality, and 25 percent exhibited alcohol dependence, either current or past. Patients with low levels of psychiatric

symptoms (i.e., "low severity") showed the most improvement, and there was no significant difference in outcome between the three treatment groups. Patients with substantial levels of psychiatric symptoms (high-severity group) showed few gains with drug counseling alone, but made significant progress with extra therapy.

Patients with only antisocial personality disorder showed little improvement in any treatment condition. However, those with antisocial personality disorder and depression were able to benefit from therapy and showed significant gains in a number of areas.

This trial stressed communication and cooperation among counselors and therapists. Compliance was related to positive outcome, and the patient's perception of the therapist's helping relationship appeared to be more important than technique.

Preliminary analyses of data from a community-based replication of this study (which included female clients) revealed more gains associated with supportive/expressive psychotherapy than with drug counseling at 7 months, a differential that increased at the 12-month followup point.

Other evidence of the prognostic significance of psychiatric symptoms in drug abuse is seen in a recent study which found a linear relationship between scores on the Beck depression inventory and engagement in needle-sharing behavior by opiate addicts. Patients with high Beck scores were much more likely to engage in needle-sharing than those with low Beck scores. This finding is particularly relevant to AIDS education and treatment for this group of individuals and again emphasizes the importance of psychiatric symptoms.

1.10 The Self-Help Modality: AA, NA, and Other Self-Help Groups

Moderator: Barry S. Brown, Ph.D.

Speaker: Alpha Brown, M.S., M.H.S.

Self-help groups are consumer-oriented groups in which members both give and receive help. Some 500,000 mutual support groups nationwide assist clients with life crises, adhering to the theme, "You are not alone." By sharing feelings, perceptions, and problems, group members actively work to bring about positive changes in attitude and behavior aimed toward individual empowerment and self-determination.

The 12-Step programs, which stress powerlessness wherein individual admission and surrender occur, generally are modeled on Alcoholics Anonymous (AA). In AA sponsorship, members assist new members, sharing experience, strength, and hope, as recounted in AA publications such as *Alcoholics Anonymous Comes of Age* and *Pass It On*. Founded in 1935, AA now has tens of thousands of meetings worldwide. To meet the needs of alcoholics with heroin addiction, Narcotics Anonymous (NA) was begun in 1953 and now comprises more than 20,000 meetings. NA guidelines are in *The White Book*.

It is important that self-help groups be accessible to new members. Autonomous meetings are open to anyone with a desire to stop alcohol or substance abuse, require no formal referral, and are essentially free of charge. Intergroup clearinghouses,

directories of the American Self-Help Clearinghouse and the National Self-Help Clearinghouse, and hotlines help locate meetings nationwide. Barbara Yoder's *Recovery Resource Book* and *The Surgeon General's Workshop on Self-Help and Public Health* (1987) contain other resources.

Speaker: Thomasina Borkman, Ph.D.

Although AA is the backbone of substance abuse treatment, the anonymity of its membership means that community and workplace efforts are sometimes not attributed to AA. The influence of AA is seen across a continuum of treatment programs discussed in the recent National Academy of Science's Institute of Medicine (IOM) report entitled *Broadening the Base of Alcohol Treatment.* Least influenced by AA along that continuum, the Referral Model incorporates little AA philosophy and uses professional staff (not recovering addicts). The Aftercare Model has higher regard for experiential knowledge, includes recovering addicts on the staff, and introduces AA to patients. The Minnesota Model is almost indistinguishable from AA, using AA language and the first five steps and having a staff consisting mainly of recovering addicts, including professionals. Between the Minnesota Model and AA is the highly AA-oriented, cost-effective Social Model used extensively in California.

A major advantage of self-help groups is their emphasis on mutual support in the face of assuming increasing responsibility for one's own problems. Linkage is fostered by AA pamphlets for both professionals outside of AA and AA members.

Speaker: Fulton Caldwell, Ph.D., C.A.C.

Despite 12-Step programs' influence on addiction issues, research on their effectiveness has been inadequate. Deterrents to this research include the autonomous nature of the groups and their emphasis on anonymity. Additional issues for research are the likelihood for alcohol abusers rather than drug abusers to be referred to 12-Step groups, the prevalence of older versus younger patients, and the number of whites rather than nonwhites. Studies of referral practices may clarify professionals' perception of self-help as a useful adjunct to treatment.

Two controlled, random studies on 12-Step groups' effectiveness have been completed. In a 1967 study, 301 chronic drunk offenders did not differ significantly in recidivism or times of arrest after 1 year, whether treated in a clinic, attending AA, or going untreated. A 1980 study of court-referred subjects (of 532 referrals, 197 started and 104 completed 10 or more sessions) found that the AA group had the most dropouts, but the group receiving rational behavioral therapy with a professional attended the fewest sessions. Individuals in all treatment groups (including inpatient therapy and rational behavior therapy conducted by a "nonprofessional") fared better than controls in both drinking and legal problems.

The IOM report suggests that research be done on AA; however, randomization, control, and statistical interpretation of social phenomena are problems. An important issue is mandated participation, which is contrary to 12-Step program principles. Benevolent coercion sometimes is useful, but requiring attendance at 12-Step programs complicates and may compromise results.

Speaker: Karst Besteman, M.S.W.

Conducting research on 12-Step programs is difficult, in part because of a lack of shared values, yet many areas of concern to program managers correspond to 12-Step program elements; for example, immediate acceptance and ultimately putting the client in charge. Self-help groups' social benefits, low cost, and lack of bureaucracy expand the treatment capacity of formal, referring programs and professionals, opening new slots for treatment while enhancing the duration of treatment, structure, and reinforcement. Professionals must share responsibility and be careful not to blur the 12 Steps of self-help programs. Both professionals and self-help programs must deal with mandated treatment for the patients' benefit. The potential for self-help groups to contribute is enormous: no program has the money or resources to engage patients for a lifetime.

1.11 Effectiveness of Family Therapy: Outcome Research

Moderator: Rebecca Ashery, D.S.W.

Speaker: M. Duncan Stanton, Ph.D.

In the 1970's and 1980's approaches to dealing with tenuous partnerships in drug-abusing couples often focused on structural-strategic rather than operational family therapy. In the past decade, six outpatient studies of family therapy were based on random treatment assignments, four with adolescents and two with adult heroin addicts. In one adolescent study, intensive family therapy produced nearly twice as many drug-free cases as family drug education and three times as many as group therapy (for adolescents alone).

In another study of 104 adolescents, drug use significantly decreased in youth involved in family therapy built around the 12-Step approach, but not in those involved with an educational program. An ongoing study of 117 adolescents is comparing multidimensional family therapy with a structural-strategic approach. A fourth adolescent study compared structural-strategic groups with structural-strategic, one-person therapy that had a family system of orientation. The improvement was almost equal, though slightly better for one-person therapy, although these results were not corroborated by urinalysis.

In a comparison involving family therapies for heroin addicts, all patients on methadone were retained and both groups improved significantly on posttreatment measures. Outcome did not differ significantly for families in a didactic course in which therapists and families identified patterns and developed cognitive notions based on those patterns. Despite randomization, families in the standard treatment group had more severe problems (i.e., higher scores on the Addiction Severity Index).

Another study with 109 hard-core heroin addicts showed a trend toward more days free of illegal drugs at 3-month followup for patients who received family therapy for detoxification with methadone compared with those who received methadone plus individual counseling. Problems included early dropouts, a lack of family participation in 39 percent of the cases assigned to family therapy, and a lack of drug agency cooperation. Detoxification from methadone was accomplished in 39

and 11 percent of the groups; however, two-thirds of the patients whose families were involved succeeded in the cost-effective outpatient detoxification. Given the higher proportion of poor-prognosis patients in one group, the results were essentially equal for the two treatments.

Engagement of families—a pervasive issue for such studies—is associated with family defensiveness, agency expectations for family involvement, and how agencies handle the interface. Case management is all important. An area for future investigation is how grief and loss relate to chronic addiction.

Speaker: Barbara S. McCrady, Ph.D.

The families of alcoholics often appear different and have different problems from families of drug abusers; however, some research involving couples with alcohol problems is relevant to families who have problems with other drugs. The use of behavioral models for this purpose is based on the assumption that family members' behavior can either serve as cues for substance abuse or reinforce abstinence. Within the context of defined family relationships, substance abusers may find incentives for change.

There are several methods of working with families. The community reinforcement approach involves straight behavioral contracting in which members reinforce the use of medications to support abstinence; the client agrees to take the medication in front of a spouse, relative, or friend. Treatment that uses role-playing to develop symmetrical behaviors that support compliance has produced dramatic results. In a study with disulfiram, behavioral counseling plus significant other involvement was associated with complete abstinence from alcohol for 30 days, compared with just 23 days for patients on medication without family therapy.

Teaching couples methods to increase positive reinforcing interactions is another approach. Through learning to identify and use elements of caring behavior, couples can improve their relationships by using positive exchanges and reinforcement, listening skills, and problemsolving through negotiation and compromise. Couples are systematically taught and helped to practice components of effective communication—e.g., accurate listening, constructive criticism, and noninterruptive conversation—and stepwise problemsolving. Other training may focus on teaching couples techniques to respond to both substance abuse and abstinence.

Research suggests that using these therapies simultaneously with addiction therapy results in better outcomes in terms of marital stability, less drinking, and more life satisfaction.

Speaker: Edwin J. Thomas, Ph.D.

A recent study has shown that a spouse can be helped to become a positive rehabilitative influence with an uncooperative drinker. The purpose of the study was to develop and evaluate ways to get unmotivated alcohol abusers to enter treatment, reduce their drinking, or both. On the basis of positive results from an earlier pilot project, this 4-year clinical experiment used newspaper advertisements to recruit spouses of alcohol abusers unmotivated for treatment, then telephone-screened them for eligibility. Participants were randomly assigned to immediate or delayed

treatment or to no treatment. Research assessment comprised the use of approximately 20 instruments before and after treatment and at 6- and 12-month followup.

Many positive but no negative changes were found for the spouses, and 79 percent of the alcohol abusers entered treatment, reduced their drinking, or both. Other results included new procedures developed for the spouse treatment program and new assessment instruments, such as the Spouse Enabling Inventory. The study also yielded findings on the characteristics of spouses and their drinking partners and on processes involved in engaging spouses to effect change in their spouses' drinking behavior.

All spouses in this study were required to meet several important eligibility criteria (e.g., absence of serious domestic violence, mental illness, and other drug abuse). Therefore, it cannot be concluded that, in its present form, this treatment would be appropriate for every marital or family situation in which there is an uncooperative alcohol abuser. The use of confrontational and other intrusive interventions in situations where these criteria are not met could greatly increase the risk of failure and precipitate such adverse complications as domestic violence, marital estrangement, and self-destructive actions.

1.12 Strategies for Breaking Marijuana Dependence

Moderator: Roger Roffman, D.S.W.

Speaker: Roger Roffman, D.S.W.

Marijuana is the most popular illicit drug used in this country, yet there is relatively little attention directed toward marijuana dependence. Many people believe that marijuana dependence does not exist, that it exists but only concurrently with other forms of drug abuse, or that if it exists, there is no reason to develop special treatment for marijuana dependence.

The 1990 National Household Survey on Drug Abuse shows that 33 percent of the people questioned have used marijuana and/or hashish; of those, 6 percent are current users. The Monitoring the Future Study found that 16.7 percent of graduating seniors (19.5 percent males and 13.8 percent females) showed a 30-day marijuana prevalence use rate in 1989. Longitudinal studies by Ronald A. Weller and James A. Halikas found that 9 percent of regular users became marijuana dependent and displayed multiple adverse consequences on functioning. It also has been found that a high rate of relapse exists among marijuana smokers who enter treatment. In addition, the number of Marijuana Anonymous chapters has increased in many parts of the country. These findings demonstrate that marijuana dependence does exist, that it can occur without concurrent dependence on alcohol or other illicit drug use, and that a specialized treatment focus is warranted.

Some research studies focus on cognitive-behavioral approaches to help adults stop using marijuana and to prevent relapse. Adults entering treatment, who outwardly appear to be functioning adequately, frequently express feeling out of control or feeling bad about themselves for having no control. A large portion of the

people participating in the University of Washington study have a sense of identity rooted in the 1960's and 1970's when marijuana use was a symbol of the times. One of the challenges is to help those dependent on marijuana realize that they are dealing with something that is serious and requires attention.

One strategy used in the University of Washington research study to treat adult-aged marijuana users is Individual Assessment and Intervention, a minimal intervention involving two sessions with a senior clinician. One-third of the people who come in for treatment are randomly assigned to this individualized treatment as opposed to an 18-session group intervention. They are very willing to participate in the individualized treatment and are enthusiastic about completing treatment in a few sessions.

The goals of the individualized sessions are to mobilize clients' motivation, to have clients feel that they are being heard and acknowledged about why they are there, and to express what they are trying to achieve. The strategy includes two 1½-hour sessions held 1 month apart, with optional participation by a significant other in the second session.

The initial session includes building rapport between the therapist and client, discussing feelings, receiving an orientation to the agenda, formulating a plan of action, participating in an assessment, signing a contract of intent, and discussing the individualized subject report that was completed prior to the session. Health effects of marijuana use are discussed, using the Hazelden booklet on marijuana. Strategies are identified to help clients avoid risky behaviors (e.g., application of the HALT Principle—Don't let yourself get too hungry, angry, lonely, or tired) and vulnerability to relapse. The second session focuses on debriefing the client's progress and planning for the future. If a significant other is present, consideration is given as to how this person can be supportive to the client.

Speaker: Robert S. Stephens, Ph.D.

Marlatt's and Gordon's Cognitive-Behavioral Model of the Relapse Process guided development of the initial 1986 study at the University of Washington. In that study, sessions were held over a 3-month period. The study found that marijuana dependence was not going to be any easier to treat than other kinds of substance abuse and that clients especially liked the group approach, although focusing on skills to deal with risk situations was helpful. Clients also wanted to spend a longer amount of time in treatment and asked to have a significant other involved in treatment.

A stages of change model was incorporated into the second study, currently in progress. The Relapse Prevention Support Group approach was expanded to 14 therapist-led sessions over a 4-month period, and a supporters' group, held simultaneously with the client program, was included for significant others. The four sessions of the supporters' group were held during key times of the client's program and assisted significant others in supporting the clients.

The first three sessions of the Relapse Prevention Support Group approach involve the contemplation phase leading up to actually quitting marijuana smoking and emphasize building clients' motivation and raising their consciousness. Session

4 is the quitting ceremony, accompanied by the development of coping strategies; Sessions 5-7 focus on techniques for lifestyle changes without marijuana, coping with urges, developing ways to relax, and identifying or gathering social support mechanisms; Sessions 8-14 deal with maintenance issues including the establishment of an ongoing self-help group; and Sessions 15-18 are self-help focused. The last four sessions are therapist led and are interspersed with sessions led by clients to assist the group in a transition to a self-help format upon completion of formal treatment.

1.13 Interventions for Cigarette Smoking

Moderator: Jack E. Henningfield, Ph.D.

Speaker: Jack E. Henningfield, Ph.D.

NIDA's nicotine research, which began in the 1970's, was critical in changing the basis of treatment of nicotine dependence from a mythology to a science. This research led to advances in diagnosis, treatment, and prevention strategies. Questions have changed from "What is the role of nicotine in tobacco use?" to "How can we further improve methods of diagnosis and individual symptom-based treatments?"

In 1982 Dr. Pollen of NIDA testified before Congress that nicotine met all the criteria of an addictive substance; this conclusion was supported later by the Surgeon General—based substantially on NIDA's research efforts. We now know that nicotine addiction is a progressive, chronic, and relapsing disorder that not only is similar in critical respects to other additions but also is involved in other addictions. Furthermore, we now understand that the addictive effects of nicotine are mediated by receptors in the brain and by neurochemical modulation. Such basic research data have paved the way for advances in treatment and have furthered our understanding of comorbid disorders of tobacco dependence such as depression and alcoholism.

Speaker: Alexander Glassman, M.D.

Research has demonstrated a relationship between tobacco use and depression. People who smoked one pack of cigarettes or more per day and who smoked within 30 minutes of waking in the morning were selected to participate in a study using the nonnicotine drug clonidine to treat withdrawal symptoms. People with severe mental disorders were eliminated from participation. Despite this, approximately 60 percent of the participants had a history of major depression, and this affected the outcome of the study. People with this history were about one-half as likely to get better than were people without it. It also was found that while clonidine did help in smoking withdrawal, it did not appear to be more (or less) beneficial than using nicotine gum.

Youngsters in a New York study who were depressed early in life were found to be much more vulnerable to nicotine use later in life. Data from a St. Louis study show that depression had a powerful effect on the cessation of smoking. People who suffered from depression were more likely to smoke cigarettes and less likely to quit.

Use of antidepressant drugs in the general population does not appear to be useful. However, people who display certain characteristics may find these drugs uniquely useful.

Speaker: Murray Jarvik, M.D., Ph.D.

No panacea exists for curing drug/nicotine dependence, although State laws restricting the sale and public use and an increased educational level among the general public have been allies to smoking cessation.

Presently the primary drug on the market to treat nicotine dependence is nicoret gum. After a 52-week study, there was a 30 percent success rate for people who used the gum and a 20 percent success rate for those who did not. Therefore, the gum can help cigarette smokers stop smoking, suppress withdrawal symptoms, and have long-term effects after users stop using it. Behavioral support also is an important factor in smoking cessation.

Other available medications include (1) substitution, (2) agents that blockade nicotine, (3) nonspecific medications for treating symptoms of withdrawal (e.g., clonidine), and (4) deterrents such as antibuse.

The nicotine delivery system includes inhalation, vapor, transdermal (e.g., patches), sublingual (e.g., tablets), nasal spray, entry through the gastrointestinal route (e.g., capsules), rectal administration, and injection (e.g., IV). Additional research is required so that the delivery system and agents become more helpful to people in the future. It is unlikely that everyone will quit smoking by the 21st century.

Speaker: John Slade, M.D.

A number of key developments over the last 5 years have dealt with cigarette smoking, including announcements that "passive" smoking causes lung cancer in nonsmokers (1986), that smoking is a major addiction (1988), and that cigarette smoking is not only a problem in itself but also a major gateway drug for other drug problems in school (1990).

A major shift currently is taking place in chemical dependence units regarding tobacco use. The following steps have been helpful in achieving tobacco-free treatment programs: committed leadership, clear rationale, policy development by nonsmokers, tobacco-free staff, and an explicit diagnosis.

1.14 Medical and Physiological Aspects of Methadone Maintenance Treatment

Moderator: Beny Primm, M.D.

Speaker: Mary Jeanne Kreek, M.D.

Research has shown that three classes of endogenous opioids, each with its own gene, are selectively bound by three classes of opioid receptors in the brain. Chronic use of heroin has an on-off effect on receptor sites in the brain. Addiction to this short-acting narcotic disrupts human neuroendocrine and gastroenterologic functions

and quite possibly the immune function. Whereas other drugs in lower doses can prevent the narcotic effect of heroin, only the long-acting synthetic opioid methadone protects against euphoria while reestablishing homeostasis.

Methadone maintenance involves achieving a steady state by escalating doses of methadone to levels as high as 120 mg per day over 3 months. Studies have shown that as heroin wears off, the levels of neuropeptides, ACTH, beta-endorphin, and cortisol increase markedly, and the circadian rhythms of neuropeptide release become indistinguishable from those of normal patients. Upon pharmacologic blockage of heroin by methadone, cortisol levels return to normal but not with naltrexone.

Altered neuroendocrine function may signal altered immune function. In studies to determine whether immune abnormalities result directly or indirectly from heroin, cocaine, or alcohol abuse (including via infection from needle-sharing), patients on very long-term methadone maintenance were found to have completely normal cell function and natural killer-cell activity. Further study is needed to elucidate the relationship between the neuroendocrine disruptions of heroin addiction and drug-seeking behavior.

Speaker: Andrea Barthwell, M.D.

Chemically dependent persons experience loss of control and an inability to predict how much substance they will use or for how long. Getting and using drugs interferes with their chosen life roles. Preoccupied with the chemical, they become progressively isolated from their families, peers, and eventually even other drug users, who protect their own drug supplies. They are compelled to use drugs, despite the obvious consequences such as hepatitis or HIV infection. Their tolerance also diminishes. Most body systems adapt to chemically altered brain activity, and cortical control is overridden by survival messages—the drive to get drugs.

In the medical model of treatment, which focuses on modulation of responses resulting from receptors not filled, withdrawal responses differ depending on the duration of action of the drug. Social, behavioral, psychoanalytical, and self-help models of recovery all require patients' retrospective analysis as well as projection into the future. Methadone maintenance lets people sit still long enough to work through these processes by interrupting their need to avoid withdrawal and allowing them to cut through addiction and experience other important elements of the treatment process. Although that process often takes 2 years, it may be shorter in a residential program with methadone; for patients who can clearly identify the potential for loss of something valuable to them (e.g., licensure for professionals), it may be accomplished in as little as 28 days.

The delivery of service to patients on methadone maintenance who have multiple problems (including alcohol abuse) that need treatment requires complex interaction among (1) the sciences of biology and pharmacology, (2) the process of lifestyle change in addiction, and (3) empathy. Moving people out of intense programs into methadone maintenance, a restrictive program that influences how patients live their lives, allows the delivery of many services with limited resources.

Speaker: Robert Millman, M.D.

Papers by Zwieben and Payte, Kohler and Ball, and the State of Michigan's Office of Substance Abuse Services present the problems and controversies of methadone maintenance. The General Accounting Office's (GAO) Report on Methadone is highly recommended for its study of 24 methadone programs in 8 States, each at least 5 years old and serving at least 200 patients (5,600 total). Some observations on methadone maintenance apropos to the GAO findings are presented here.

High percentages of patients continuing heroin use while in these programs may reflect high rates of use prior to treatment. The average dose of methadone (under 60 mg; range, 21 to 68 mg) given in these programs may be too low; anecdotally, 80 mg of methadone appears to lower cocaine and alcohol use as well. GAO reports that 20 to 40 percent of clients use cocaine, a rate far below the 70 to 80 percent estimated for some inner-city clinics. Alcohol use was not measured, because there is no good test for alcohol—breathalyzer data are inadequate. As a measure of treatment efficacy, many programs rely on urinalysis but do not perform it routinely; only a rigorous effort has validity.

Four to 5 percent of the clients missed methadone treatment at least 1 day per month, and retention rates ranged from 42 to 83 percent, with significant numbers leaving programs within 3 to 6 months. Few of the programs offered educational and vocational services (six and four programs, respectively), and participation in vocational training was especially low in programs with low-employment rates.

High patient-counselor ratios in many programs limit service delivery to crisis intervention. One-half of the counselors had been employed less than 1 year; the high staff turnover reflects low salaries, lack of career opportunities, and burnout. Additional training would stimulate professionalism in counselors, who tend to blame themselves for failures, and would help lower the rate of burnout.

Because of protracted abstinence and the indelible effects of narcotics on the nervous system, detoxification from methadone is difficult, though with maximum support it does not equate with withdrawal from heroin on the streets. Detoxification from methadone should be discouraged except in patients who are doing terribly or who are doing very well and demand it. Furthermore, some States refuse to pay for it. Adequate counseling and comprehensive services, including intensive aftercare, are essential for detoxification from methadone.

1.15 Contingency Contracting

Moderator: John Grabowski, Ph.D.

Speaker: John Grabowski, Ph.D.

Perspectives common to drug abuse are chronic disease models (with origins in the medical model), genetic models (with origins in biological predisposition), psychopathology (with origins in psychology and psychiatry), and stress (with origins in environment and biology).

The conceptual framework for behavioral interventions is premised on these basic statements: (1) the perspective of drug taking is behavioral-biological; (2) the behavior is reinforced by immediate consequences; (3) these consequences strengthen the behaviors leading up to drug use; (4) the consequences are the effect of drug use and its associated conditions; (5) behavioral change requires changing the relationships regarding the controlling events surrounding the behavior; and (6) the major determinants that influence drug use are pharmacologically, biologically behaviorally, socially, and environmentally based.

The Behavioral and Behavioral Pharmacological framework can accommodate the elements of these other perspectives. However, behavioral approaches go beyond each of these perspectives by relying on a careful analysis of the full range of determinants that act alone and in combination with maintenance of drug abuse. Behavioral approaches use this analysis to develop a plan to generate therapeutic behavioral change. Thus, behavioral strategies rely on observed behaviors and environmental circumstances surrounding drug abuse rather than on preconceived "causes." Most important, the techniques can be incorporated into other traditional therapeutic frameworks (e.g., psychotherapy) and be used to ensure compliance with collateral services and to achieve educational, employment, health care, and social functioning goals. Most important, the procedures are data based. Therefore, results can be carefully evaluated with essential changes made as needed in treatment plans to work towards positive outcomes.

Contingency contracting can be successfully used by selecting the target behavior, clearly defining the behaviors, and objectively measuring the results. Behavioral change, the purpose of contingency contracting, requires altering relationships and controlling events. In drug treatment, actions are reinforced by immediate consequences. Consequences reinforce the series of behaviors leading up to drug taking, the consequences of the drug effect, the conditions associated with actual drug use, and the reaction of friends and relatives; treatment strategies must use effective consequences to change behavior and to develop alternative adaptive behaviors.

Drug abusers are not a homogeneous group, and treatment to eliminate drug addiction must consider the variation in environmental factors. Learning new behaviors can be accomplished in a variety of ways: (1) establishing and maintaining treatment-conducive behavior, (2) changing the social and environmental factors that maintain negative behavior, (3) providing appropriate pharmacological interventions, and (4) devising alternatives to taking drugs.

Drug abuse practitioners must obtain a complete client evaluation and case history; establish minimum behavioral requirements; identify reasonable goals; gradually introduce new treatment components; employ positive elements to treatment (concentrating on favorable consequences); and emphasize positive behavior environments. Recording schemes should be easy to use.

Behavioral therapies have been utilized in the Community Reinforcement Model for Cocaine Dependence (Higgens), Contingency Contracts for Cocaine Abuse (Crowley and Anker), Drug Abusing Pregnant Women (Kirby, Grabowski, and Andres), and Tuberculosis Treatment in Drug Users (Grabowski, Elk, and Kirby).

Thus, behavioral techniques can be used to change a wide range of behaviors with and within other therapeutic modalities.

Speaker: Martin Iguchi, Ph.D.

The primary objective of a treatment is to get people into and then retain them in treatment. This can be done by deploying outreach workers and offering treatment coupons and other innovative techniques to help defray initial clinic evaluation costs and sustain treatment-oriented behavior. Behavioral methods have proven to be particularly successful. For example, of the 3,000 drug abusers recruited for this study, 80 to 90 percent accepted the coupons, and more than one-half cashed them in at the treatment facility.

Recording the client's behavioral history is extremely important. Clues to the past (with the goal of changing future behavior) can be obtained by the client's own statements and/or from observations by others. Once in treatment, patient self-monitoring can be accurate, depending on the contingencies placed on it. Biological markers also can be used to monitor behavior. Carbon monoxide measuring detects smoking; breathalizers measure alcohol use; and urinalyses (EMIT and TLC) detect a variety of drugs. Hair testing has not been validated to date.

Critical components to treatment management contracting are that contingencies be clear, well defined (both positive and negative), and not limited to the client alone but extended to staff as well. The arrangement of contingencies should be readily and reliably administered.

Reinforcers must not always be concrete items. One of the strongest reinforcers is attention or social reinforcement directed toward appropriate behavior. It should not be limited to negative behavior. Research has demonstrated that tangible reinforcements, such as gift certificates to movies and grocery stores, also produce favorable results. Counselors must be very selective about using negative reinforcements, because adverse consequences make people leave treatment. The "Time Out" principle, taking away reinforcers, is an appropriate mechanism for treating negative behavior, especially if clients feel good about the program. Counselors should use reinforcers not to make their lives easier but to help clients achieve their goals.

The biggest problem with contingency contracting is that the client's natural environment may not support treatment goals.

Speaker: Maxine Stitzer, Ph.D.

Many people entering treatment have no real intention of completely giving up drug abuse. One treatment goal is to convince them to do so. Contingency management procedure uses reinforcers (positive, negative, or a combination of the two) as consequences to effectively produce behavioral change.

Methadone clinics have more reinforcers readily at hand than do drug-free clinics. Methadone clinic incentives to improve maladaptive behaviors and control alcohol or polydrug abuse during treatment include the following:

- Writing a contract with clearly defined treatment goals, including discharge if the client is not drug free within a set period of time;
- Providing medication for home use (most effective and convenient);
- Altering dosages (popular and effective);
- Expanding or altering clinic access time; and
- Providing access to counseling sessions.

Community-based incentive programs also can help increase the number of people who achieve abstinence and lengthen their abstinence time.

It is important to target interventions and offer incentives to people who display problem behavior rather than to apply them clinic-wide. Completion of an individualized reinforcer survey can help in planning a course of action according to a client's preferences. While the incentives discussed above have been used in the methadone clinic, some can be adapted to the drug-free clinic setting. Other innovative techniques also can be applied in these environments.

Research studies that have evaluated contingent incentive procedures designed to promote reduction in ancillary drug use among methadone patients have found that (1) disulfiram mixed with the daily dose of methadone effectively controls alcoholic drinking, and (2) approximately 30 to 50 percent of maintenance clients stop supplemental drug use during incentive programs. In addition, attachment of consequences to behavior appears to positively impact treatment outcome, no matter what type of intervention used. Finally, adverse consequences involving dose decreases promoted treatment dropout.

1.16 Treatment of Multiple Drug Use in a Methadone Maintenance Setting

Moderator: Lawrence S. Brown, Jr., M.D., M.P.H.

Speaker: Lonnie Mitchell, Ph.D.

It is estimated that today, more than 80 percent of the individuals who receive treatment in public facilities for heroin addiction are ethnic minorities. Yet, we find that less than 20 percent of the service providers are ethnic minorities. Given the disparity in percentages, there is a need to reexamine whether sufficient emphasis has been placed on the importance of culturally relevant treatment strategies.

The AIDS crisis has complicated drug abuse treatment in this country. The ramifications for heroin addicts, especially blacks, are staggering. The Centers for Disease Control report that among heroin IV drug users with AIDS, 80 percent are black males, and 10 percent are black females. Ninety-eight percent of the infants diagnosed with AIDS are born to women of color, particularly black females. These statistics compound the need for culturally relevant treatments for ethnic minorities.

There has been and continues to be a need to improve drug abuse treatment and the system in which it operates. OTI was congressionally mandated to examine what

is happening in the treatment field. OSAP has funded a national training system, in part in recognition that effective training is necessary to help service providers enhance their capabilities in treating drug abusers.

Concerns about the continued use of methadone maintenance treatment for heroin addiction has surfaced over the years. Some data suggest that the consequences of methadone maintenance addiction may be as serious as heroin addiction. Findings also suggest that methadone maintenance is not working because treatment discharge rates are not increasing significantly. Some people question whether patients are enjoying an enhanced quality of life as a result of methadone maintenance programs and whether program waiting lists are getting shorter. Another problem with methadone maintenance is that this treatment perpetuates narcotic addiction in the view of this author.

The methadone maintenance clinic should provide a multimodal approach to treatment to help addicted persons who have a variety of problems. Treatment staff members must be trained to treat patients in a professional and humane manner. Training is at the cutting edge of quality health care. Training can provide staff with the skills needed for planning and conducting programs to solve methadone maintenance problems.

Speaker: John Cooper, A.B.D.

Sign Approach Planning (SAP) is a culturally nonbiased personal management skill that involves something therapists cannot teach—motivation, which comes from confidence in one's ability to accomplish his/her goals. A technique that enables clients to intervene on their own behalf is SAP, which is based on the premise that behavior results from feelings about the environment. Signs which precede behavior may be internal or external.

SAP occurs on four levels. At the sign level, the individual forms conclusions about the external world. Adrenaline flow increases, and behavior follows immediately. Secondly, at the conflict level, the individual must make decisions about the action that will follow the sign (e.g., peer pressure). Adrenaline flow continues to increase, and anxiety results. Third, at the diagnosis level, the conflict is resolved. For an addict, the easiest way to resolve the conflict may be to return to drugs; however, a client trained in SAP learns to stop and consider alternatives—perhaps even to write down interventions. During this time, the dilemma may be resolved, because adrenaline flow is reversed and behavior is effectively changed. Finally, at the in-control/out-of-control level, feelings are the basis on which behavior is exhibited.

SAP works because individuals are trained to recognize signs, preplan responses, and maintain self-control. The key to success is the individual's ability to recognize signs. Despite therapists' training, clients with SAP can better identify their own problems and set their own standards. SAP works in multimodal treatment settings, because patients monitoring their own behavior and setting their own goals (in effect, "prescribing their own medicine") build their self-esteem, thereby fostering attendance at therapy sessions which can facilitate new behavioral patterns.

Speaker: Anthony Tommasello, M.S.

Alcoholism is common among patients in methadone maintenance programs. As many as 81 percent of patients with alcohol abuse problems are heavy drinkers prior to entering a methadone program; others become alcoholics during treatment. Although it is associated with noncompliance, patient failure, and death in treatment, alcohol abuse is treatable in methadone maintenance settings.

Appropriate methadone dosage is key to methadone maintenance programs. If the dosage is too high, patients exhibit excessive sweating, chronic constipation, and perhaps intoxication. If the dosage is too low, patients attend sessions irregularly or drop out of treatment and continue to abuse opiate drugs. If adequate dosage is administered, patients show a high rate of compliance, are employable, exhibit family and social stability, and reduce illicit drug use activity. In an early study with Ira Liebson, patients who had failed all other methadone maintenance programs due to alcohol problems were given methadone on the condition that antabuse was taken. These patients fared better due to the addition of antabuse and completed a 6-month course of therapy compared to control group patients who were not given antabuse. Patients not on antabuse complained of inadequate doses of methadone; compliance rates fell with lower doses. Furthermore, patients in the contingency model begged to continue in this structured program.

The focus on alcohol in methadone maintenance programs may wax and wane as administrators and counselors face various pressures and priorities. Cocaine and benzodiazepine abuse, pregnancy, and HIV and AIDS issues compete for their attention. Despite heavy caseloads that allow little time with each client, a full range of alcoholism services is essential. Staff should be trained to screen patients for alcoholism at admission and be able to identify it during treatment. Referral and followup must be an integral part of comprehensive service delivery in methadone maintenance programs treating alcoholism.

Speaker: George Woody, M.D.

There is no single method for effectively treating polydrug use by patients on methadone maintenance, but staff training clearly affects patients' outcome. Staff must be trained in pharmacotherapy, including the recognition of the effects of various drugs, multiple drugs, and the different routes of administration (e.g., IV, intramuscular, oral) of many substances of abuse. They must identify polydrug users' different stages of use and withdrawal; for example, users may be intoxicated with one drug while in withdrawal from another. Faced with the complexities of differential diagnosis and the agonistic effects of multiple drugs, they must learn to recognize anxiety-related mood disorders as well as neurological changes and changes in vital signs such as pulse and blood pressure.

Residual problems, exemplified by the neuropsychiatric effects of alcohol, include disturbances of short-term memory and difficulty learning new information which may cause mild or even severe functional problems for as long as 2 years after cessation of use. Attempts also are being made to characterize polydrug abusers, who may combine two, three, or four opiates, depressants, and stimulants, and to identify patterns of polydrug use.

A major effort now underway is to develop pharmacotherapy to supplement, but not replace, psychosocial treatment which has been the backbone of treatment for polydrug users. In the treatment of cocaine, desipramine alone has been shown to reduce the rate of cocaine-positive urine tests. Antabuse has been used in the treatment of alcoholism; its effectiveness can be assessed using breathalyzer tests and treatment compliance. Short-term inpatient treatment is helpful in achieving stability for polydrug users, who then may benefit from other more long-term therapy. Contingency contracts have been successfully used in treatment over periods as long as 2 years, when used in a positive (not punitive) manner.

1.17 Pharmacological Advances in Drug Abuse Treatment: Part A

Moderator: Frank Gawin, M.D.

Speaker: Paul J. Fudala, Ph.D.

A derivative of the opiate alkoid thebaine and structurally related to morphine, buprenorphine is a partial agonist that shows high affinity but only moderate intrinsic effects at the mu-opiate receptor. Among available opiate agonist-antagonists (including dezocine, nalbuphine, pentazocine, and butorphanol), buprenorphine is the only one to show utility. In animal studies it also has been shown to be an antagonist at the kappa receptor, but the clinical significance is not known.

Sublingual buprenorphine solutions, stable in doses up to 8 mg, are produced by dissolving the hydrochloric salt in 95 percent ethanol, diluting it to 30 percent ethanol, and then storing it at room temperature. Plasma levels of buprenorphine indicate an elimination half-life of 39 hours.

Research has shown that buprenorphine in 2- and 4-mg doses prevented subjective discomfort in methadone-treated patients with naloxone-precipitated withdrawal. In 4-mg (but not 2- or 8-mg) doses it was found that buprenorphine decreased withdrawal symptoms in patients transferred from methadone or street heroin to buprenorphine. In ascending 2-, 4-, and 8-mg doses of buprenorphine over 3 days, followed by 8-mg daily maintenance, withdrawal was precipitated with rapid opiate excretion until the fourth day, when all patients had urine levels that were below the opiate-positive cutoff of 300 ng/ml.

Evidence that buprenorphine might be effective in decreasing cocaine use in opiate addicts was supported by a report that buprenorphine suppressed cocaine self-administration by rhesus monkeys. Although buprenorphine (8 mg) and methadone (60 mg, but not 20 mg) were significantly associated with a decrease in illicit opiate use, it would be premature to assume the utility of buprenorphine in cocaine-using addicts. Studies are continuing to assess the safety and efficacy of buprenorphine prior to seeking FDA approval for its use in treating opiate dependence.

Speaker: George E. Bigelow, Ph.D.

Pharmacotherapy for addiction may be accomplished in several ways. A legal or less harmful medication may be substituted for the drug of abuse, reducing use of the illicit substance through the mechanism of cross-tolerance (e.g., methadone, diazepam, or nicotine chewing gum for opiates, alcohol, or tobacco, respectively). Blockage occurs when a medication occupies the receptor site at which a substance of abuse acts (e.g., naltrexone in opioid abuse). Palliation is the relief of symptoms without interfering with drug use (e.g., fluorazepam to aid sleeping or clonidine to reduce withdrawal discomfort). Deterrence occurs when a therapeutic agent renders a substance aversive rather than rewarding, such as disulfiram for alcohol abuse.

As a partial agonist and mixed antagonist, buprenorphine both substitutes for and blocks opioids, but it must be tested for its safety, its potential for precipitating withdrawal instead of providing relief, its possible side effects or toxicity, and its potential for producing or sustaining physical dependence, i.e., whether it will become an abused substance. Evaluation of buprenorphine's efficacy must include whether patients accept and like it (i.e., retention), whether as an opioid alternative it provides relief and is clinically effective in reducing opioid use in the community, how it affects other substances of abuse (e.g., polydrug users and toxicity), what time course and doses are most effective, and which patients should receive buprenorphine.

Preclinical laboratory studies are required of the effects of pretreatment and challenge in animals and humans, as well as clinical studies. Ninety-day clinical trials of sublingual buprenorphine and methadone (30 mg, oral) involving 3-week detoxification and hydromorphone challenges showed that 4- to 8-mg doses are appropriate for buprenorphine. Patient acceptance, retention rates, and urine opiate levels did not differ significantly between the two agents. The efficacy of higher doses and the absence of toxicity at doses up to 16 mg per day require further study.

Speaker: Douglas Ziedonis, M.D.

Cocaine has an acute effect on neurons, stimulating faster presynaptic production and release of dopamine and other neurotransmitters. With chronic cocaine use, the postsynaptic reuptake of neurotransmitters is blocked. Increasing from recreational to high-intensity (free-base or IV) cocaine use results in dopamine receptor changes, norepinephrine and prolactin abnormalities, and brain lesions. Early treatment of cocaine use is critical because cocaine addicts frequently become opiate addicts.

The first 3 months of cocaine abstinence are critical. Patients may be given anticraving agents such as amantadine, bromocriptine, and L-tryptophan and, to deal with agitation and paranoia, neuroleptics or benzodiazepenes. Agents that help maintain abstinence and prevent relapse are desipramine, imipramine, and serotonigenic agents such as Tegretol and carbamazepine. For comorbid psychiatric disorders, lithium and Ritalin have been tried. Open trials have been conducted for amantadine, bromocriptine, and Ritalin. Studies of the tricyclic antidepressants and more double-blind controlled studies are needed.

In a study of 72 subjects, abstinence from cocaine was dramatically increased after 3 to 4 continuous weeks on desipramine, and at 6-month followup, patients fared better than those on lithium. Following cocaine challenges in a controlled setting, it

was concluded that desipramine is medically safe for treating cocaine dependence. Although desipramine does not block cocaine-induced euphoria, it may reduce desire for the drug. A study of dually diagnosed patients showed lithium to be effective only for dysthymic cocaine users; however, desipramine helped cocaine users with and without psychiatric disorders.

A 5-week study of amantidine and desipramine showed equal retention rates and parallel decreases in cocaine-positive urines for 3 weeks; however, cocaine use then increased in amantadine-treated patients, indicating a smaller window of effect. An amantadine and desipramine study with dually diagnosed patients receiving methadone showed that addicts with depression improved most; all treated patients decreased the amount spent on cocaine each week and a number of the placebo-treated patients dropped out by the fifth week.

A 3-month study of low and high doses of methadone versus buprenorphine in cocaine-using opiate addicts showed that buprenorphine (6 mg) was associated with a 60 percent decrease in cocaine-positive urines, compared with a 30 percent decrease from methadone (at least 65 mg). In another study, cocaine use by 25 percent of opiate addicts on methadone was reduced to just 5 percent when patients were switched to naltrexone and decreased even more with transfer to buprenorphine.

Among other agents tested, bupropion and flupentixol also are promising as pharmacological agents in the treatment of cocaine dependence. Pharmacotherapy should be part of comprehensive treatment for cocaine abuse, especially for patients with severe use, dual diagnosis, prior treatment failure, or medically compromising conditions.

Speaker: Frank Gawin, M.D.

All substances of abuse produce pleasure, which appears to occur particularly within the mesolimbic dopaminergic pathways of the brain. Withdrawal reflects minute neurophysiological changes in specific regions of the brain that have purely psychological expression. An important component in discontinuing use of substances of abuse is disregulation of pleasure or reward—many substance abusers complain of emotional emptiness in their lives. However, research has demonstrated that cocaine abuse is not purely psychological. Preclinical studies have demonstrated the amplification of pleasure induced by cocaine or amphetamines, the effects of withdrawal (the psychiatric state of anhedonia), and how antidepressants reversed the changes of withdrawal. Knowledge gained from studies of heterocyclic antidepressants is applicable across a range of abuse, from alcohol, stimulants, amphetamines, cocaine, opiates, nicotine, and PCP to eating and gambling disorders.

Clinical studies of cocaine abusers unable to maintain more than 7 days' abstinence (100 of 101 patients interviewed) show that desipramine (ultimate dosage, 212 mg; mean plasma level, 149 ng) is far superior to placebo or lithium (plasma level, 0.59 meq/l). Desipramine substantially decreased cocaine use and craving after 2 weeks, reduced the amount of drug in binges, and doubled 6-week retention rates. The desipramine plasma level at 24 hours and 1 week was the strongest predictor of outcome; however, at doses above 65 mg, no patient achieved abstinence. As a

dopamine uptake blocker, desipramine may act counter-therapeutically, thus promoting relapse.

Plasma levels of heterocyclic antidepressants also reveal efficacy levels for facilitating abstinence from other substances. In opiate-dependent patients, methadone increases the elimination of desipramine; thus, lower doses (75 to 100 mg) are sufficient. Optimum plasma desipramine levels are between 180 and 200 ng/ml. Studies have shown that adequate plasma concentration is related to the efficacy of doxepin and that lower doses of imipramine were no more effective than psychotherapy. Future research should focus on the role of tricyclics in maintaining abstinence after withdrawal from opioids and on facilitating retention in persons on naltrexone.

Tricyclic antidepressants (e.g., amitriptyline, 40 to 80 mg; doxepin, 75 mg) were previously considered ineffective in treating alcohol abuse, but evaluation of plasma levels indicates that to produce abstinence efficacy similar to that for cocaine, desipramine must be given in adequate doses (e.g., 600 mg per day to achieve a plasma level of 150 ng). When given within the proper dose range (resulting in 80 to 200 ng plasma level), tricyclics seem to have efficacy similar to that of another class of antidepressants that has different pharmacokinetics—the serotonin uptake inhibitors (e.g., fluoxetine, fluvoxamine).

Studies show that desipramine decreases withdrawal symptoms and facilitates abstinence in purely PCP-dependent persons. Studies of pharmacological treatment for nicotine dependence indicate little other than the use of replacement therapy. Clonidine (not a heterocyclic antidepressant) has had mixed results; buspirone, effective only at very high doses (90 to 120 mg), has strong tricyclic-like effects on the reward system; and doxepin facilitates nicotine abstinence.

1.18 Pharmacological Advances in Drug Abuse Treatment: Part B

Moderator: Jerome Jaffe, M.D.

Speaker: Donald R. Wesson, M.D.

Medications can be used in many ways. It is important to decide why a particular medication is to be used to select appropriate outcome measures for clinically tracking its efficacy.

Heroin withdrawal treatments include methadone (as part of a methadone maintenance program) and buprenorphine as well as clonidine, which, though still investigational, is commonly used without FDA approval. Other medications are under development at NIDA for use in cocaine withdrawal. Substitutes for stimulants generally cause more problems than they solve; however, the literature suggests that methylphenidate works well for brief periods. Desipramine and other antidepressants used as legal treatments in withdrawal from opiates also are among the drugs used to reduce craving (e.g., amantadine, the dopamine agonist bromocriptine, and carbamazepine).

Naltrexone blocks the reinforcing effects of opiates, and the tolerance built up by methadone might be considered a functional blockade as well. No medication is really effective to block stimulants, although lithium and neuroleptics have weak action. Antidepressants are used in the treatment of both underlying and drug-induced psychopathologies in opiate and stimulant abusers. Also under investigation is the notion that precursor loading may temporarily reverse the depletion of the neurotransmitters dopamine and serotonin in stimulant abuse.

Because the primary efficacy of a medication must be tightly linked to the therapeutic purpose of the medication, the challenge is to develop the most appropriate measures of efficacy. If the therapeutic purpose is to decrease withdrawal symptoms, the measure of efficacy should be the intensity of those symptoms rather than time to relapse or drug-positive urine. If the purpose of detoxification is safe withdrawal—not treatment—relapse is not a measure of efficacy. Despite natural distrust of self-reports, subjective reports are often better than physical measures of efficacy for medications dealing with craving and withdrawal.

Speaker: Maxine Stitzer, Ph.D.

Methadone is the most widely used of all drug abuse medications existing or under development. More than 90,000 patients are now being treated in more than 700 clinics. Like other opiate agonists (heroin and morphine), methadone is a pain killer that constricts pupils and slows gastric motility (causing constipation) while producing mild euphoric effects which make the drug attractive to patients. Taken orally once every 24 hours, methadone provides a lower level of reinforcement than shorter-acting opiates without the risk of IV administration. Retention in good methadone clinics—about 60 percent—is better than for any other modality. Methdadone's underlying mechanism is cross-tolerance, which renders other drugs less effective.

Although it has been attacked from various nonscientific perspectives, data show that methadone is effective. For example, in a randomized clinical trial conducted with 34 addicts in Sweden, 12 of 17 methadone-treated patients were leading productive, drug-free lives after 2 years; 3 were taking heroin; and 2 had been discharged for behavioral problems. Among the 17 controls, 12 were still on heroin, only 1 had a good outcome, 2 were dead, and 2 were in prison. The study attributed a dramatic decrease in mortality rates—an important outcome measure—to methadone maintenance.

Outcomes vary across treatment sites in the contemporary world, ranging from more than 90 percent drug-free patients in some clinics to disturbingly low percentages of drug-free patients in other clinics. One of the most important factors is the dose of methadone. A randomized short-term trial of 50, 20, and 0 mg daily doses of methadone showed that high-dose patients stayed in treatment longer than low-dose patients. Among those who stayed in treatment 20 weeks or longer, the patients given the high dose had lower rates of positive urine tests. Retention was very poor for the patients maintained on 0 mg methadone, although they had been detoxified in advance. Patients need at least 60 mg per day of methadone to suppress

heroin use effectively. The general rule is to use higher doses of methadone when the heroin on the street has higher potency.

Criminality decreases with methadone treatment, partially because the need to obtain the daily supply of illicit narcotics is removed. To a less reliable extent, productivity (e.g., employment) increases with decreased drug use. However, the integration of behavioral treatment with pharmacologic intervention (i.e., adequate dosing) is essential. Counseling services must address the ancillary problems of opiate addicts receiving methadone.

Speaker: Richard B. Resnick, M.D.

It is dramatic to see an overdose victim—comatose, with depressed respiration—spontaneously wake up when given less than 1 mg of naloxone. This opiate antagonist is the drug of choice among anesthesiologists to regulate sedation and respiration in surgery patients receiving narcotics. Unlike naloxone, naltrexone is long acting and orally effective and thus can be used in the treatment of addicts once they have been detoxified. Studies using heroin challenges (5 and 15 mg) have shown the blocking effects of 120 mg of naltrexone after 24, 48, and even 72 hours.

The most commonly used naltrexone treatment regimen is 3 doses per week (100, 100, and 150 mg). Naltrexone creates a situation in which the addict's return to the community does not pose a threat because the effects of heroin are decidedly nullified and rehabilitation can occur. According to classical Pavlovian conditioning, repeated pairings of the effect of drugs or drug withdrawal and environmental cues cause the environmental cues to produce either drug effects or withdrawal symptoms. Addicts who experience conditional withdrawal may use heroin to alleviate the symptoms. Naltrexone, by blocking the euphoric effects of heroin, extinguishes the response to conditioned abstinence and the craving and relapse associated with it. Patients benefit by learning to identify what triggers craving and the behavioral techniques to avoid it.

Because some patients motivated to receive naltrexone are unable to remain opiate-free for the time required, a rapid detoxification procedure described to patients as "flushing heroin from the receptor" has been developed to compress withdrawal into a period of hours instead of days. After the first two to three doses of naloxone (1.2 mg, im) at 30-minute intervals, withdrawal peaks and naloxone injections continue in this manner until two successive injections produce no further abstinence (5 to 15 injections; range, 4 to 8 hours). This procedure—which is safe and popular among patients who prefer brief, intense suffering to gradual, routine detoxification—is consistent with the notion that once receptors are occupied with the antagonist, the mechanism for withdrawal symptoms is no longer present.

Posttreatment outcomes for patients on naltrexone require more than a simple prescription for medication. Contingent on the context in which the medication is taken, compliance is more likely in patients who stand to lose jobs, personal freedom, friends, or spouses; retention is uniformly low in patients lacking psychosocial intervention as part of the treatment. The treatment community should be educated in the appropriate use of naltrexone, which currently is offered to few addicts.

Speaker: Rolley E. Johnson, Pharm.D.

Dose selection is central to the development of a new drug application for buprenorphine. To measure the effects of this partial agonist in decreasing opiate withdrawal symptoms, doses of 2, 4, and 8 mg buprenorphine have been tested. To investigate the antagonist properties of buprenorphine, individuals maintained on a mean dose of 38 mg per day of methadone were challenged in a randomized, double-blind, placebo-controlled, crossover study with naloxone, 0.5 mg given subcutaneously and 2 and 4 mg buprenorphine given sublingually. Naloxone precipitated an opiate withdrawal syndrome in these individuals while the administration of buprenorphine resulted in only one self-report of sickness. Oral doses of buprenorphine up to 40 mg have been studied. However, due to first-pass metabolism, the oral route is only one-tenth as potent as the subcutaneous route.

Because withdrawal from buprenorphine (a schedule V narcotic) appears to produce fewer physiologic symptoms and less subjective discomfort than methadone, buprenorphine may be useful as a first-line treatment for patients too early in the drug abuse cycle to qualify for methadone. The sublingual route of administration is effective for producing analgesia and currently is the preferred route for opiate addiction treatment. It is believed that most individuals can be treated with doses of 4 to 8 mg of buprenorphine daily, and some may be treated with 2 mg or less. In an inpatient study, about one-half of the patients who underwent abrupt withdrawal following 36 days of daily or alternate day dosing with buprenorphine required adjunct medications to suppress the withdrawal syndrome. In this study, peak withdrawal effects occurred between 72 and 120 hours, and, except for insomnia, were absent by 240 hours. Thus, a gradual reduction in dosage is suggested as the method of choice for detoxification.

Buprenorphine may serve as a bridge medication to transfer patients from methadone to naltrexone without an absolute drug-free state or to facilitate achieving drug-free status directly from heroin and methadone. Buprenorphine's possible role in treating dual addictions, such as heroin/cocaine, also is being investigated. Additional dose-ranging, pharmacological interaction, population-specific (e.g., pregnant addicts) studies also are needed.

1.19 The Treatment of Cocaine Abuse: Behavioral Approaches

Moderator: Chris Ellyn Johanson, Ph.D.

Speaker: Anna Rose Childress, Ph.D.

Many kinds of influences in a patient's environment—both external and internal—pair with cocaine use and its effects and over the course of addiction acquire the ability to trigger craving and arousal, probably through classical conditioning. Such cues include persons with whom the addict used cocaine, sites of drug using or buying (streets, neighborhoods), people getting high on the street, money (which may in certain amounts be synonymous with particular kinds and purities of cocaine), alcohol or other drug use, memories of the cocaine high (cocaine dreams), music, smells (matches or butane lighters, pharmacies and pharmaceuticals,

cocaine being used in the building), and moods (patients' self-medication with cocaine fuels this association).

To develop a procedure that would help reduce craving and arousal, neutral and cocaine cues were identified and tested for physiologic responses in the laboratory. Cues then were presented clinically in a series of 15 1-hour sessions over a 2-week period via videos of cocaine buying, selling, and administration; audiotapes of street talk; and the handling of paraphernalia related to each patient's mode of administration. The addicts, who were treated on an inpatient basis to control the environment, were brought just to the point of use but not allowed to use cocaine. Information about "use" episodes outside the cues was gathered from weekly self-reports. Physiological data (regular urinalysis) showed that statistically reliable reductions in craving using passive cue exposure were achieved, yet many patients still craved cocaine and relapsed.

A menu of active techniques for response to cues has been developed and is detailed in a training manual for clinicians. The goal is to help patients develop tools to resist craving. In preparation for the transition to the real world, patients are encouraged to keep practice logs that demonstrate what works for them and show their progress. A protocol is developed to combine passive and active cue exposure techniques with good psychosocial counseling.

Speaker: Richard Rawson, Ph.D.

Toward the goal of evaluating the efficacy of drug-free outpatient treatment, which has been widely used but not well studied, an assessment of patient needs as they change over time and a sequence of procedures for treating them have been combined into a neurobehavioral model. This model is based on the premise that neurochemical readjustment occurs when addicted persons stop using cocaine. The procedure, which systematically deals with issues involving behavioral, cognitive, emotional, and family and relationship disruption, was tested in a heterogeneous group of patients ranging from middle-class, white-collar intranasal users to mixed-race (40 percent black, 40 percent Hispanic), inner-city crack smokers. Both retention in treatment and urinalysis were used to measure outcome.

Some of the issues to be addressed during treatment relate to biological readjustment and provide definitions to explain the recovery experience to patients. Treatment must address the initial "crash" of withdrawal, which is characterized by behavioral inconsistency; cognitive impairment; depression or anxiety; and mutual anger, hostility, and fear among family members. Patients in this phase are assisted in developing 24-hour daily plans to provide structure in their lives and to help them gain self-control instead of simply reacting to how they feel.

During the next "honeymoon" phase of recovery, retention is threatened because the patient seems much better. Understanding addiction is important in this phase and is facilitated by a Tinker Toy model of the brain illustrating how a voluntary response becomes an automatic biological response. Discussion focuses on what triggers craving and behavioral techniques to avoid return to cocaine. Meanwhile, psychotherapy may involve deep psychoanalytic exploration.

Patients are most prone to relapse between 6 weeks and 4 months. During this period of anhedonia, emphasis is placed on developing the patient's recognition of relapse signals. The program has evolved from mostly group sessions to include individual counseling three times a week for the first month and two times a week for the remainder of the 6-month program. Addicts' families must be involved in this approach; family work concentrates on education and motivational strategies rather than on intensive counseling.

Evaluation of this neurobehavioral treatment model, which requires extensive training for therapists, is being conducted through controlled studies at seven treatment sites with sample populations that include smoking women and dually diagnosed patients. The focus of one of these studies is the use of this model with desipramine as an adjunct pharmacotherapy.

Speaker: Frank Gawin, M.D.

The drug-abusing population is accustomed to using pharmacotherapy to feel better; thus, it is essential that patients' perceptions be changed to include an understanding of what a pharmacological agent does, how it works (i.e., that it is not magical), and how interaction between pharmacotherapy and psychotherapy can help treat cocaine addiction. Cocaine amplifies pleasure. During the early stages of withdrawal, the addict experiences the ascendence of a subtle clinical syndrome. Normal pleasure is diminished, and by middle to late withdrawal the person is in a state of high cocaine craving. Cocaine users can understand the problems of anhedonia but must be trained to recognize what triggers craving and relapse.

For a long time, pharmacotherapy was not tried because cocaine abuse was perceived as a psychological disorder. Cocaine addiction is now known to be produced by neurophysiological changes in small regions of the brain which have only psychological expression. Animal studies have shown the existence of pleasure sites that correspond to the mesolimbic dopaminergic pathways in the brain and have demonstrated that anhedonia results from desensitization following chronic stimulation. Treatment with antidepressants reversed the changes in those regions of the brain, providing rationale for the use of antidepressants to pharmacologically treat the human anhedonia of withdrawal.

In the first methodologically sound study of a tricyclic antidepressant for cocaine dependence, desipramine used interactively with psychotherapy doubled 6-week retention rates and dramatically decreased cocaine use. Crucial to the program's success was the ability to keep patients in treatment for 3 to 4 weeks during which patients had time to assess the disarray cocaine had produced in their lives and to begin reestablishing relationships and intellectual processing of the messages of psychotherapy. Because persons on binges are unavailable neurophysiologically, the decrease in the amount of cocaine used during binges (from 3.5 to 0.5 g per binge) also is very important. It appears that cocaine itself serves as a cue that is reduced by desipramine, although the precise nature of the relationship of pharmacotherapy to extinction needs further research.

1.20 The Treatment of Cocaine Abuse: Psychosocial Treatment

Moderator: Anna Rose Childress, Ph.D.

Speaker: Anna Rose Childress, Ph.D.

Cues that trigger cocaine craving and arousal include sights, sounds, and smells related to drug use, money, other drugs used concomitantly, and moods for which patients may have self-medicated with cocaine. Two approaches to the problem of cocaine "reminder" cues have been developed. The first approach evaluated the benefit of repeated *passive* exposure to drug-related cues in a treatment protocol featuring a 2-week inpatient stay followed by a 2-month outpatient phase. Patients who received passive cue exposure in addition to other standard psychosocial treatments (e.g., counseling or psychotherapy) showed significantly better outpatient retention and more cocaine-free urines than randomly assigned comparison patients receiving the same psychosocial treatments but with a control activity instead of cue exposure.

A second approach, implemented over the past year, teaches patients a series of *active* techniques for reducing the craving triggered by cocaine-related cues. These techniques include delay/behavioral alternatives, deep relaxation, negative-positive consequences, negative-positive imagery, mastery imagery, and cognitive interventions. These techniques are taught in individual sessions, with the patient recreating an episode of craving (from memory) and working to reduce the craving in the presence of a skilled therapist.

Preliminary data suggest that most patients can learn the active techniques; however, they must choose to use these tools in the "real world" outside the treatment setting. For many addicts, craving implies an imperative to use cocaine—the addicts fail to perceive the choice. Just as cues trigger craving, the state of craving can be taken as a reminder to do something different. Patients returning to their communities are at high risk, even with the support of self-help groups. Active tools for reducing cue-related craving and arousal can complement these groups' traditional avoidance strategy. Use of these tools actually encourages patients to take responsibility for handling cues in the situations to which they will be exposed and cannot easily avoid.

Speaker: David Smith, M.D.

Cueing and relapse prevention, which are state of the art, are complemented by psychosocial treatment and embellished with pharmacological intervention. The approach to comprehensive treatment may be modified substantially, depending on the setting. Inpatient settings protect patients from environmental cues that can trigger drug hunger, but it is counterproductive to transfer all addicts to inpatient settings. Addicts must accept drug hunger and craving as part of the disease; they must learn that drug use is not inevitable. One of the benefits of the group process is having role models who have had drug hunger but have not and do not use the drug. Rapidly involving patients in 12-Step programs is important. The message of belief is stronger from self-help group members than from counselors.

While the more than 350,000 persons who die of nicotine dependence-related illness each year and the 100,000 who die of alcohol abuse problems represent many times the number who die of cocaine addiction, the problems are related. Cigarette smoking is a cue for cocaine hunger. Believing that the best place to deal with nicotine dependence may be the drug clinic, the American Society of Addiction Medicine and others are challenging a long-held idea that attempting to deal with legal drug problems will cause people addicted to other drugs to drop out of treatment. In fact, dropout rates are no higher when nicotine and alcohol abuse are addressed during cocaine treatment. The strongest resistance to combining nicotine therapy with that of other drugs has been among cigarette-smoking staff.

Addressing the interface between cocaine addiction and sexuality also is critical. During withdrawal, anhedonic patients often remember cocaine-enhanced sexual desire and performance. Exercise is important because it reduces drug hunger. Acupuncture also can serve as an adjunct in detoxification and pain management for the recovering addict. To reach outpatients before they drop out, the group process and counseling may be supplemented with pharmacotherapy designed to facilitate restoration of neurotransmitters depleted during chronic cocaine use. L-tryptophan was promising clinically but has not held up to rigorous double-blind controlled research. To serve persons whose social support systems do not support abstinence, outpatient drug treatment centers have evolved as health maintenance organizations that must address all aspects of recovering addicts' lives.

Speaker: Frank Gawin, M.D.

Pharmacotherapy is used in cocaine abuse treatment to help make the patient available for psychotherapy. The complex interaction between these modes of therapy occurs at multiple levels and multiple times, according to the stages of recovery. The crash that occurs immediately after a cocaine binge is followed by a period of withdrawal characterized by anhedonia and then by a period during which extinction of drug hunger may take place.

There is no pharmacotherapy for the crash. Patients should fully experience the crash. Therapy during this period may involve imagery. The patient may be asked to recall a fantastic high and then to associate it intellectually with the pain, depression, and intense craving of the subsequent low.

During the first days following the crash the patient can begin to benefit from tricyclic antidepressants (e.g., desipramine) and psychotherapy. Together they can reverse the neurophysiologic state of anhedonia. By enabling 60 to 70 percent of cocaine addicts on desipramine (but only 20 percent on placebo) to maintain 3 to 4 consecutive weeks' abstinence and by reducing the amount of cocaine taken in binges (0.5 g, down from 3.5 g per binge), desipramine appears to facilitate the extent to which patients have slips instead of complete relapses. By decreasing the duration of binges, desipramine appears to help the patient maintain some control; life activities, including therapy attendance, are less disrupted. The 3 to 4 weeks' abstinence is crucial because it allows time for the patient to begin reestablishing relationships with family, therapists, and therapy group members. The effect of

pharmacotherapy is perhaps to reduce baseline craving, thus, lowering the chance of relapse.

The structural, psychotherapeutic, and pharmacotherapeutic components of treatment must be integrated. The structural components include, first, confinement (perhaps as an inpatient), then isolation from a cue-rich environment during which education and exposure to controlled cues take place, and, finally, gradual entry into the real world. Psychotherapy, which begins actively following the period when the patient is restricted from cocaine (i.e., during withdrawal), concentrates primarily on relapse prevention. As an adjunct to psychotherapy, pharmacotherapy (desipramine for 6, 8, or 10 weeks only) helps patients deal with anhedonia. Therapists agree that exercise during this period is extremely important. There is no medication to sustain abstinence from cocaine. During the extinction period, efforts are devoted to recognizing and learning to respond appropriately to environmental cues. The emphasis is on transition from the isolation of clinical situations to the community.

Flupenthixol, a new pharmacological agent not available in the United States, is more effective than desipramine in dealing with crack cocaine. Flupenthixol at the maximum dosage increased abstinence from 8 to 24 weeks in a group of Bahamian treatment failures. Compliance is not an issue with flupenthixol because it is injectable and takes effect in 4 to 5 days, in contrast to the 2-week lag time with desipramine.

Studies of pharmacological agents continue toward the goal of creating therapy for use in a world where there are too few inpatient facilities and therapists. In the meantime, patients may benefit from self-help groups. While a better baseline state is achieved through combined psychotherapy and pharmacotherapy, patients must make lifestyle changes that incorporate recognition of early warning signals for relapse and appropriate prevention strategies.

1.21 Relapse Prevention Through Skills Training

Moderator: Anna Rose Childress, Ph.D.

Speaker: Janice Gabe, M.S.W.

Posttreatment adolescent behavior can be considered as being one of four types. In the "roller coaster up," periods of ups and downs are experienced. In the "roller coaster down," isolated incidents of drug use or dysfunctional behavior become more frequent, but there is often a spontaneous return to the roller coaster up. In the "toboggan down," total relapse follows apparently good progress. Finally, there are those who "never joined in the first place." It is essential to identify this group. While individuals belonging to the first three groups need a relapse prevention and skills building program, those in the fourth group need intervention and must be taken out of the relapse prevention program.

After those belonging to the fourth group—those who never joined in the first place— have been removed from a relapse intervention program, there are four steps they must complete before they should be returned to a treatment or relapse prevention program: (1) they must understand the process of relapse and recognize

their problem; (2) they must enter a structured program focused on recovery when they acknowledge their problem; (3) they must work with a network of helpers, including family, schools, probation officers, etc., to recognize the appropriate time to change the program; and (4) they must attend special programs designed to meet individual needs. In addition, they must not be recycled through the same programs they previously attended.

Speaker: David Nurco, D.S.W.

The self-help approach affords clients opportunities to address deficiencies in life skills. All self-help groups offer a peer support network, non-drug-oriented recreational and social activities, a forum to reinforce gains and cultivate new skills, and compensatory opportunities through community outreach. However, not all groups are appropriate for all people.

Narcotics Anonymous (NA) and similar groups based on 12-Step programs are effective peer support groups. However, many methadone clients object to the total abstinence requirement of 12-Step programs. Another group is Rational Recovery (RR), which is based on the concept of rational emotive therapy: people have self-defeating ideas and behaviors acquired by irrational thinking which can be changed by rational thinking. The RR premise that everybody has the capacity to recognize problems and change behavior contrasts with the NA premise that says we are powerless to change and must rely on a superior power. A third approach, Recovery Training (RT), focuses on aftercare treatment promoting lifestyle changes to reduce the probability of relapse. RT, patterned after the Ex-addict Alumni Association in Hong Kong, is a structured, didactic curriculum presented by a professional group worker. Covering 23 highly relevant topics, RT includes fellowship meetings to promote peer support and to discuss curriculum topics and other issues.

Guided self-help groups for methadone maintenance clients rely on the capacity of ex-addicts to assume greater responsibility for and control of their lives. The program is clinically guided in that professionals work with the clients to provide the impetus and tools to organize and sustain a viable self-help group. When methadone maintenance clients achieve goals of abstinence from drugs and criminal behavior, maintenance of employment, and establishment of stable family and community relations, they are given take-home privileges and receive less counseling, which reduces their dependency on staff and services. It also frees staff for others needing greater assistance. Unless there is a relapse, clients receive minimal services.

Clients in the modified self-help program, who have been stabilized in methadone maintenance, report a number of problems relating to employment, lack of education, difficulties with their spouses and children, and health (including the fear of HIV/AIDS infection). Financial/emotional stress, continuing drug and alcohol abuse, and legal problems also remain important underlying concerns.

Speaker: Jerome Platt, Ph.D.

Skills-building programs are directed toward attempting to provide the base for people to deal with problems. Programs to remedy skills deficits follow one of two

approaches: specific skills training, such as aggressiveness, assertiveness, and stress management; and generic skills training.

In generic skills training, people are taught *how* to think rather than *what* to think. The basic skills needed are (1) the ability to recognize the existence of a problem, (2) the ability to generate alternative solutions, (3) the ability to apply means-ends thinking or stepwise problem solutions, (4) knowledge of how to approach another person, (5) the ability to think of the consequences of a course of action, (6) a recognition of cause-effect relationships between behavior and other events, and (7) a recognition of what others on the scene are thinking and how they might respond.

Among the groups with basic skills deficiencies are drug offenders in treatment in correctional settings, alcoholics in Veterans' Administration settings, pregnant adolescents, depressed individuals, suicidal adolescents, unemployed persons, ill-adjusted preschool and elementary school children, and chronic psychiatric patients. Studies have shown that basic skills training leads to significant improvements in all these groups.

The skills training program used in New Jersey is based on the use of highly structured manuals with a script for implementation by counselors and trainers who are not senior-level professionals in the field. The counselor or trainer meets with the supervisor, usually in a group setting, to review what has taken place in the previous group and to plan or rehearse the script for the meeting of the next group. The sessions are taped to ensure the accuracy of program delivery.

1.22 Vocational Rehabilitation/Employment Development

Moderator: David Metzger, Ph.D.

Speaker: Joan Randell, M.A.

The process of vocational and educational (V&E) training usually includes the use of all or part of the following techniques: V&E testing, assessment, work sampling, and counseling; work adjustment training; prevocational activities; provision of educational services (remedial education, G.E.D., college, and higher education preparation); training in skills for job searching; job development, referral, and placement; and postplacement counseling and followup. Among clients in New York, fewer than one-third were employed; one-half were not high school graduates, and one-half of these clients read below the fifth-grade level. Of those reading between the fourth- and seventh-grade levels, 60 percent were dyslexic. Many had meager work histories, and few had marketable skills. Traditional therapeutic programs will not ameliorate these skill deficits.

Obstacles to success fall into three categories: client level, program level, and external level. At the client level, welfare is the biggest disincentive, because many clients are reluctant to give up welfare benefits while they are uncertain of their abilities in the world of employment. Other client-level obstacles are continued drug abuse, depression, personality characteristics, educational background, and poor work history. These obstacles can be addressed in the program.

Program-level obstacles include (1) a lack of emphasis on V&E training in the programs; (2) difficulties resulting from treatment philosophies; (3) fiscal disincentives, such as loss of medicaid benefits upon employment; and (4) undervaluing of V&E staff by the agencies. External obstacles include discrimination by employers, funding structures, and variations in the job market.

To integrate effective V&E assistance with treatment, the treatment program as a whole must consider V&E an important part of treatment and demonstrate this. In addition, there must be knowledgeable resources in the program, linkages with community resources, and policies and procedures supporting accountability and followup.

Speaker: Peter Loeb, M.S.W.

The Job Seekers' Workshop has been successful in helping methadone maintenance clients and former heroin addicts gain employment. The program is similar to other job finders' clubs' programs, but is tailored to drug treatment clients. It provides assistance and practice in areas such as completing applications, using telephones, and interviewing for jobs.

The objective is to help clients get their own jobs and develop the skills they need to do so. Individuals progress at the rate appropriate to their needs. The most important feature in working effectively with drug treatment clients is extensive use of videotape feedback. Interactions lasting 3 minutes or longer are taped and played back for the client to criticize. The program works to develop the clients' strengths, not merely to address weaknesses. The workshop progresses through levels of increasing difficulty appropriate to each individual.

The clients need to accept that they can function as well as other persons in the employment setting and in the "straight" world. To this end, the clients learn how to handle difficult questions such as a history of drug abuse and a criminal record. They also learn that the open and complete honesty appropriate for a 12-Step program or a therapeutic community is not always best for the job interview and the world of employment.

Speaker: Jerome Platt, Ph.D.

The Employment Readiness Program was designed to help clients in methadone maintenance gain skills to overcome their own barriers to employment and to handle problems in daily living, either through specific skills training or generic skills training. The program provides generic skills training and has been used successfully with a wide range of populations.

The skills included are (1) problem recognition; (2) alternative thinking; (3) means-end thinking or stepwise problemsolving; (4) causal thinking, the ability to relate events to each other; (5) consequential thinking, the ability to see the result likely from an action; and (6) role taking or perspective taking, the ability to see a situation from the viewpoint of others involved.

The program follows a detailed manual, which ensures accurate delivery of the material delivered by nonsenior professional staff. The use of senior-level

professionals would introduce the particular theoretical orientation of the professional as a variable in the program; the program's view is what should be delivered.

Some of the findings are that (1) the overall employment rate increased; (2) white suburban males had the highest rate of employment; (3) there was a higher rate of psychological problems among unemployed males, especially white males; and (4) the clients adopted the approach and would return for additional assistance. The next step is to develop skills training to prevent relapse.

1.23 Addict Aftercare Manual

Moderator: William McAuliffe, Ph.D.

Speaker: Richard Catalano, Ph.D.

Alcohol and drug abusers who enter treatment experience dramatic reductions in drug use during treatment, no matter what the modality; however, studies show high dropout rates: within the first 3 months of treatment, about 60 percent of the patients in drug-free outpatient programs, 56 percent of residential therapeutic community patients, and 35 percent of those on methadone maintenance leave their programs. Relapse rates also are high: 67, 60, and 59 percent, respectively, for the same three modalities after 1 year, a period beyond which only 20 to 30 percent of users of all drugs (including alcohol) are abstinent.

This failure may be associated with three categories of factors: pretreatment, during-treatment, and posttreatment factors. Pretreatment factors such as severity of use, psychiatric impairment, criminality, and occupational or familial instability are predictive of relapse. Continuing drug use or beginning use of new drugs, involvement in crime, and negative expectations (e.g., not being convinced about the value of changing one's lifestyle or a lack of confidence in the ability to change) are during-treatment factors that preclude success.

Posttreatment factors are associated with half of relapses; pretreatment factors, 10 to 20 percent; and during-treatment factors, 15 to 18 percent, respectively. Patients returning to drug-using, conflictual, or poorly bonded families are at high risk, as are those who work or socialize with drug users. Such relationships are nonsupportive as well as harmful, yet patients who attempt isolation to avoid temptation may suffer equally from failure to become reinvolved. The situational factors of depression, anger, anxiety, and physical pain are triggers for about one-third of first drug use following treatment. Relapse often occurs when skill deficits hamper an individual's ability to resist pressure and refuse drugs. Negative life factors—divorce, loss of job, major illness—and community factors such as lack of ancillary services or posttreatment residences also contribute to relapse.

To be effective, treatment in aftercare programs must be comprehensive. Relapse factors and the positive outcome for those who stay in treatment imply that ways need to be found to motivate clients at all stages of treatment and aftercare.

Speaker: William McAuliffe, Ph.D.

The forthcoming revision of *Addict Aftercare: Recovery Training and Self-Help* describes a nontraditional approach to recovery training. Designed to last at least 6 months, with an average stay of 9 to 12 months, the program requires attendance at two formal group meetings each week, weekend and major holiday activities to further develop patients' social support networks and to give leaders an opportunity to observe progress, and weekly sessions with individual counselors. Members also are encouraged to attend 12-Step fellowship meetings every day they are not in aftercare and any other days that they need extra support. The programs are always open; thus, each group has participants in all stages of recovery.

The recovery training program model integrates the behavior-conditioning model of addiction, a developmental theory of change, and sociological theory. Its fundamental therapeutic experiences are extinction of drug conditioning, adoption of a self-sustaining recovery lifestyle, and participation in a supportive recovering community that bridges the gap between addiction and conventional society. The program is for people who have achieved abstinence for 1 to 2 months. Adherence to the carefully detailed treatment plan presented in *Addict Aftercare* is recommended, although elements of the program may be used independently. The manual's "cookbook" approach gives group leaders (usually professionals) 26 prescribed sessions, each with a suggested introduction, points to cover, discussion questions, self-assessments, lists of the kinds of changes people need to make, handouts, and a wrap-up procedure. The highly structured curriculum includes such topics as coping with family issues, dealing with cravings and trigger situations, socializing with other addicts, and changing one's lifestyle. Flexibility, however, is key; discussing obstacles to change also allows for handling individuals' crises.

The revised manual, which will offer the benefit of 10 years' experience with recovery training, as well as the results of a recently completed randomized clinical trial with cocaine addicts and a study of AIDS prevention, will include new sessions. Among the new sessions are one on adaptation of the model to cocaine addiction and a session on AIDS-related issues (testing, safe sex with recovering people, and how to provide support when an AIDS test is positive). Cessation and midrecovery programs and a new manual pertaining solely to cocaine users are being developed to meet the needs of special populations.

Speaker: Fred N. Zackon, M.Ed.

Recovery as a learning experience involves addressing two questions: What do people have to learn? How do they learn, or how do you teach them? A simple formula for directed social learning consists of four essential elements of change: practical guidance, role models, a learning community, and genuine approval.

Practical guidance is like coaching—the person or organization delivering the knowledge must sense when clients (players) speed up, slow down, or repeat things; when it is dangerous to go too far; where they should or should not step; when rest is needed; when to study a strategy; and when to work with the team. A good therapist does not have to be a recovering person but should have observed and learned from multiple recoveries and should be a student of the field. Some

recovering persons may lack understanding or communication skills; they may be too rigid or too demanding.

Directed social learning almost always needs successful role models and a learning community or engaged peer group to provide a proper alignment within which change can proceed. Sincere, honest encouragement and approval are often the necessary "fuels" motivating those whose confidence is low and whose drug-free satisfactions are minimal. Professional treatment programs should mobilize the four elements of change for many of the cognitive and behavioral aspects of recovery, much as the 12-Step fellowships have mobilized change for the psychospiritual aspects of recovery.

The process of recovery is above all a process of acculturation; to adapt to the culture of recovery, people need a new way to understand and tell their own "stories." *Addict Aftercare* provides a set of topics and tools to facilitate this task. The manual's images and metaphors can be simplified or embellished by group leaders to get the individuals in each group to share their stories. Within their shared culture, group members can then use the four keys to change, as a learning community. The fundamental challenge for each group's leader is to help build that community.

1.24 Identification of Dual Diagnosis in Drug Abusers

Moderator: Frederick K. Goodwin, M.D.

Speaker: Frederick K. Goodwin, M.D.

Among patients with a diagnosed alcohol or other drug use disorder, a lifetime history of mental disorder frequently is found: more than one-half of adults with a lifetime diagnosis of drug abuse or addiction have had one or more mental disorders, and 37 percent of adults who have ever been alcoholics or alcohol abusers have had one or more mental disorders. For individuals who have had either an alcohol or drug abuse disorder, their chances of having the other substance abuse disorder are approximately seven times greater than for the rest of the population. Individuals with more than one problem understandably are more likely to seek treatment and, indeed, comorbidity rates are higher among those who visit outpatient mental or substance abuse treatment centers. Analyses of the NIMH Epidemiological Catchment Area data base have revealed that among individuals who sought treatment for a drug disorder, 64 percent had a mental disorder in the previous 6 months. Of individuals who sought treatment for an alcohol disorder, 55 percent had a mental disorder in the previous 6 months. Finally, 20 percent of those who visited a treatment center for a mental disorder had a substance abuse disorder in the previous 6 months.

Because mental illness comorbidity is likely to obscure and modify the nature of symptoms associated with substance abuse and/or addiction, pretreatment evaluation of patients with drug and alcohol use disorders is critical but can be problematic. Failure to recognize and address comorbid disorders can and often does lead to poor response to treatment and poor outcome. Patients with a history of mental and addictive disorders are most likely to be treatment resistant when treatment is applied

from a single treatment perspective, i.e., substance abuse or mental disorder. Surveys indicate that a majority of mental health specialists fail to ask simple questions about substance abuse, and, conversely, that substance abuse treatment providers tend to be inadequately prepared to detect the presence of a mental disorder. While assessment instruments can be useful in the evaluation of either or both conditions, they should not be relied on simply as checklists for people with minimal training but, rather, as the framework for pattern recognition by experienced clinicians.

Patterns of comorbidity seen in certain conditions—for example, co-occurring affective disorders and substance abuse—raise intriguing questions regarding the relationship (i.e., causal or secondary) of substance abuse and dependence to subtypes of major affective illness. While the etiologic mechanisms underlying these high rates of comorbidity remain undiscovered, common neurotransmitter systems have been identified for some mental and addictive disorders, and methodologies for investigating comorbidity at the neurobiological level are being refined and expanded.

Speaker: Robert Millman, M.D.

Data from community-based and treatment samples of inner-city, lower-class drug users, as well as the more studied middle class, show an enormous incidence of comorbidity. More than half of the people who abuse drugs other than alcohol have at least one comorbid mental illness (e.g., approximately 76 percent of cocaine abusers have psychiatric disorders). Among the 22.5 percent of the U.S. population who have diagnosable mental illness, 29 to 30 percent have a lifetime history of either drug abuse or dependency. An estimated 30 to 50 percent of the psychiatric patients in treatment have substance abuse disorders; as many as 80 percent of abusers have psychiatric disorders. Research has shown addicts' incidence of antisocial personality is 40 to 50 percent.

Historically different perspectives on comorbidity have been influenced by different models of substance abuse. The gluttony model, in which abusers were perceived as greedy, preceded the Harrison Narcotic Act of 1914. After this Act was passed, the use of dangerous drugs went underground. Government in this country tends to conceptualize the criminal model by building more jails. In the heyday of American psychiatry, everything was attributed to underlying psychiatric disorders, and treatment (or inadequate evaluation) led to remarkable recidivism. Meanwhile, the chemical dependency model, which is accepted by Alcoholics Anonymous, and models based on theories of persistent neurochemical deficit and metabolic defect, also assumed a place in the attempt to understand craving and relapse.

Perceptions of the relationship between substance abuse and psychiatric illness vary: (1) psychiatric disorder might precede substance abuse, substance abuse being self-medication or the result of impaired judgment or social passivity; (2) substance abuse—acute or chronic—might cause psychopathology; (3) the two might coexist independently; or (4) the two might coexist independently though related by etiology (e.g., genetics). Thus, clinicians face the problem of when to diagnose. Patients evaluated too soon after entering treatment may still be under the influence of a variety of drugs (some symptoms may last for months). Also, it may be difficult to get patients under control to administer the assessment instruments, which should not

be used independent of clinical interviews and cannot be used for all disorders. Followup data are scant.

Dual diagnosis requires a mental status examination, a psychiatric history, and an intricate, detailed drug history (e.g., which drugs patients do or do not like, which have good or bad effects for them, which are their drugs of choice) to assess the meaning of drugs to an individual at progressive stages of drug or polydrug use. The psychological sequelae differ with acute and chronic drug use. Acute effects as well as withdrawal effects may relate to premorbid psychopathology. Profound, protracted abstinence may be psychopathological comorbidity ascribed to chronic use of drugs, perhaps related to a persistent neurochemical deficit. The natural history of substance abuse and related psychiatric problems needs more study.

Speaker: Bruce Rounsaville, M.D.

In a multidimensional treatment program that assumes independent coexistence of drug abuse and psychiatric disorders, the best predictor for outcome in the long term is how the patient was doing in each area at the start of treatment. Followup studies (531 opiate addicts, 321 alcoholics, and 298 cocaine users after 2½, 3, and 1 year[s], respectively) show that dually diagnosed patients are harder to treat and more prone to relapse. Cross-addiction was frequent in these patients. One-third of the opiate addicts and more than one-half of the cocaine users were also alcoholics, and 4.3 percent of the alcoholics abused other drugs. The majority sought treatment on the basis of their drug abuse problems.

Assessment using the Schedule of Affective Disorders and Schizophrenia (DSM-III precursor) or the Diagnostic Interview Schedule showed a lifetime incidence of major depression among opiate addicts that was nine times the New Haven community rate. The increased incidence of depression and antisocial personality, independent of drug-seeking behavior, was less dramatic among cocaine users and alcoholics. In the treatment setting, the incidence of neither schizophrenia nor bipolar illness was significantly higher than that for the community. Major depression is extremely treatable, in contrast to antisocial personality, but patients with both disorders respond to treatment for depression.

Dually diagnosed patients with preexisting symptoms of depression or with depression independent of abuse may not require immediate treatment for their psychiatric disorders. However, patients whose depression and anxiety persist after at least 2 weeks of abstinence from drugs or alcohol may benefit from antidepressants. Their ability to regulate moods is related to their ability to stay drug-free, hence to prevent relapse. Such patients need treatment before they drop out of the program. Studies show that lifetime diagnosis of psychiatric disorders using systematic, structured clinical interviews within a few days of entry into treatment have prognostic significance 2½ and 3 years later.

Speaker: Richard Rosenthal, M.D.

Differences in philosophy and training are part of the issue of comorbidity. No domain educates globally to foster the efficient recognition of overlapping psychiatric and substance disorders, nor do terms such as "dual diagnosis," "mentally ill chemical

abuser," and "comorbid psychiatric illness" express its complexity. Diagnostic instruments such as the DSM-III and DSM-III-R, which look at addictive disorders as mental disorders, give the therapist a consistent and categorical means of communicating about the disorder.

Every class of substance can cause symptoms of major psychiatric disorders; therefore, clinicians must ask questions pertaining to substance abuse and use DSM-III criteria to differentiate symptoms that are organic from those that are functional (i.e., intoxication or withdrawal syndromes in acute or chronic substance abuse). In accordance with a study showing that substance abuse-related organic mood disorders accounted for half of patients' suicidal ideation and depression, clinicians should not presume psychiatric disorders on the basis of early symptoms. Rather, they should allow patients 2 to 3 weeks to wash out, and serially administer the Hamilton Depression Scale, for example, before committing them to inpatient antidepressant treatment.

Regardless of the etiology of disorders, the appropriate balance of restrictiveness or permissiveness within treatment settings depends on the type of psychopathology present and the rate at which the dually diagnosed patient regains his or her baseline functioning level. This applies to the effects of abused substances upon cognitive and psychosocial organization as well. In a framework of staff response to clinical feedback, the balance shifts toward increasing autonomy and responsibility on the part of the patient. The treatment may include traditional psychotherapy for bona fide psychiatric disorders in an effort to help the patient achieve autonomy and self-control.

1.25 Appropriate Treatment Services for Dual Diagnosis in Drug Abusers

Moderator: Frederick K. Goodwin, M.D.

Speaker: Frederick K. Goodwin, M.D.

This conference highlights the importance of mental health disorders in the patient with substance abuse and vice versa. Dual diagnosis is complicated. Patient and family histories of both disorders should be considered carefully in planning treatment. The coexistence of these disorders shows the need for different approaches to treatment.

Speaker: Richard Ries, M.D.

Many issues complicate dual diagnosis. The system for academic diagnosis or research may not be the same as that used for treatment. Diagnostic instruments such as the Diagnostic Interview Schedule, the Structured Clinical Interview for DSM-III-R (SCID), and the Addiction Severity Index (ASI) do not work for dual diagnosis. Treatment providers are not necessarily cross-trained. For some patients, dual diagnosis is beneficial because treatment offers dual support systems; however, for some treatment programs, dually diagnosed patients may cause problems.

Clinical typology should begin simply with psychiatric and substance abuse categories. Substance abuse classification should distinguish between episodic and regular daily use. The typology should be flexible in order to function at the acute (emergency room or admission), subacute (inpatient or beginning treatment), and maintenance phases of treatment. It also should be consistent with existing treatment-matching typologies. Simple combinations of major or minor psychiatric disorders with major or minor chemical dependency result in four clinically useful dual diagnosis categories: (1) minor psych minor substance; (2) minor psych major substance; (3) major psych minor substance; and (4) major psych major substance. These typologies are defined not only by acute symptom intensity but also by ongoing (chronic) treatment needs.

When psychiatric disorders are major, patients must be stabilized in the acute phase before they can be treated for major or minor chemical dependence. In the subacute phase, the type of treatment depends on whether the psychiatric condition has been stabilized and on the severity of chemical dependence. While non-dual-diagnosed individuals with minor substance use disorders often do not qualify for chemical dependency treatment, even minor substance abuse may destabilize a patient with a major psychiatric disorder, thus substance abuse intervention must be incorporated into the psychiatric system where these patients are found. With a minor psychiatric disorder and major chemical dependence disorder, the patient usually should be treated first for substance abuse because psychiatric treatment may increase denial of the substance problem. It is important to define the severities and types of both psychiatric and substance disorders in order to match treatments which will best facilitate the recovery process.

Speaker: Kate B. Carey, Ph.D.

Appropriate treatment for severely mentally ill adults with substance abuse disorders includes several components: medical management, case management to coordinate services and followup, identification of early-stage relapse, and continuity of care for transitions between inpatient and outpatient treatment. Education and counseling about both disorders and how substance abuse contributes to psychological symptoms is very profitable. Therapists should share the philosophy of rebound and better management without self-medication and encourage participation in self-help and peer support groups. Patients also need help finding drug-free social opportunities.

The effectiveness of skills training in the treatment of alcohol abuse is well documented, as are the deficits of drug abusers' coping skills. These deficits and the expectation of drug use increase the likelihood of relapse. As part of relapse prevention treatment, patients should learn cognitive, affective, social, and behavioral skills. In coping skills training (CST) therapy, the leader provides a rationale for and description of skill components, models appropriate use of skills, encourages rehearsal of skills through role-playing, and offers support and corrective feedback.

CST should focus on skills rather than attitudes and feelings, thus accommodating dually diagnosed patients' cognitive limitations, and sessions should be held at least twice weekly to enhance and consolidate learning. Attendance

incentives and reminders should be considered to maximize attendance—which posed a great challenge in a recent study.

Speaker: George De Leon, Ph.D.

Recently much attention has been paid to MICA clients (the first group). These primary psychiatric patients with substance abuse difficulties have been excluded from therapeutic communities (TCs), and other drug abuse treatment modalities, because of their apparent unsuitability for this approach. Moreover, indications are that these same clients cannot be managed in existing mental health facilities. They appear to be the group that falls between the cracks of the two systems.

Nevertheless, the TC model also can be modified for these most disturbed drug abusers. For example, several traditional TCs have developed special programs for MICAs, many of whom are referred by mental health institutions and shelters for the homeless substance abuser. Among these dually diagnosed groups, case-by-case assessment is needed to determine the individuals' suitability for a TC regimen, even one modified in its structure and moderated in its therapeutic intensity.

Although modified, these programs adhere to the traditional TC perspective and approach in terms of the TC's developmental view of recovery from chemical abuse, its community dynamic, program structure (e.g., job function system, daily community meetings, variety of groups), and emphasis on mutual peer self-help.

Some key differences are found in the integrated staffing pattern of TC and traditional mental health workers, the flexibility of the TC's phase format (modest goals, tolerance for individual differences in rate of change), the treatment plans that include psychotropic medication and increased individual counseling, clinical management methods (e.g., more individualized privileges and sanctions), and special procedures for management of psychotic episodes of refractory behavior related to mental disorders. This requires an expanded clinical understanding beyond that of the familiar character disorder and immaturity features that typify most drug abusers.

A key policy issue in the diffusion of the modified TC model is the inherent contradiction between the TC self-help recovery-based process for treating dually disordered patients and the existing mental health and social services entitlement system. In many cities and States, these systems discourage the self-reliance element emphasized by TCs as essential to rehabilitation.

Speaker: Anthony Lehman, M.D.

To meet the needs of dually diagnosed patients, a rehabilitation program integrated education, diagnosis, treatment, and management of mental illness with the 12-Step group approach commonly used in substance abuse areas. Among 54 patients randomized to treatment, more than 50 percent had schizophrenia; 30 percent suffered from major affective disorders. On the basis of SCID, 59 percent met DSM-III-R criteria for current substance abuse or dependence; all met lifetime criteria for substance use disorders, most often involving alcohol or cannabis.

Case management was intensified by reducing patients per therapist from 25 to 15 to provide patient and family education and support, to prepare patients for 12-Step programs, to locate programs for them, and to provide social experiences not

involving substance abuse. The self-named "Being Sober Group" met five times weekly. Each week, one 1-hour session focused on education concerning substance abuse, mental health, the interaction of drugs and medication, recovery, or relapse. The 52-week curriculum also included weekly rap sessions, pre-Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) sessions, visits to AA and NA meetings, and drug-free social activities.

Evaluation using ASI, an objective quality of life index, and measures of life satisfaction at baseline, 6 months, and 12 months showed no treatment effect in terms of group-by-time interaction, but patients in the treatment group had more mental health visits and, during followup, had fewer hospitalizations. Despite intensive efforts, patients on average attended only one of five sessions; thus, failure to engage may have prevented a fair test of the model. The major impact of the program was on the rehabilitation center, which made substantial policy changes to accommodate this program. The more accepting policy led to most patients staying in rehabilitation.

1.26 Intake and Diagnosis of Drug-Dependent Women

Moderator: Loretta Finnegan, M.D.

Speaker: Ira Chasnoff, M.D.

This presentation focuses on procedures for diagnostic evaluation of drug-dependent pregnant women. The main barriers to prenatal care and drug treatment for this population are the attitudes and perceptions of health care professionals toward drug-using pregnant women. The difficulty of developing accurate estimates of the problems of drug use in pregnancy affects the recruitment of women into treatment programs. In addition, a diagnostic evaluation should be conducted of the woman as an adult, as a mother, and as a woman interacting with her new infant.

Speaker: Nancy L. Hamilton, B.A.

Traditionally, research about alcohol and drug dependency and the programs that have been developed based on that research have been about males and designed for males with cursory attention to women. Research shows that women indeed react differently to addictive substances and benefit from different treatment methods.

The best time to gather information from clients is at assessment/intake. The client is most vulnerable at this time, and if the interviewer is skilled in nonjudgmental caring practices, crucial information can be gathered. These data are essential to good treatment and discharge planning.

Assessment instruments often are generic in quality and do not tend to capture a female client's issues nor provide for a gender-sensitive interview. It is, therefore, good practice to develop tools that guide the interview and produce individualized data that capture not only general addiction patterns, consequences, and demographics, but women-specific items as well. Items in the assessment/intake process should cover the following: beliefs about femininity, motherhood, sexuality, and extensive information on physical and sexual abuse; drug history (drug use 3 months

prior to first trimester and during breast-feeding); dependency issues from family of origin and each subsequent relationship; physical and/or sexual problem history; the client's assessment of what she believes a woman and mother should be and what her performance in those roles actually is; and discharge information about employability skills, financial situation, and the environment to which she must return after treatment. A plan should be developed to address these issues in treatment and aftercare. Relapse trigger factors, barriers to treatment, and recovery and support networks must be explored and addressed to increase the likelihood that a woman's entry and completion of treatment and aftercare will be successful. The presentation concentrated assessment instruments, interviewing techniques, and intake processes that increase admission, retention, and followthrough for drug-dependent women.

Speaker: Roger Weiss, M.D.

Little has been written about the differences between male and female cocaine abusers. Therefore, sociodemographic characteristics, reasons for cocaine use, symptoms of depression, and diagnoses in 95 men and 34 women hospitalized for cocaine abuse were compared. Men were more likely to be employed, hold higher status jobs, and be self-supporting. Women were more likely to cite specific reasons for drug use, while men tended to use cocaine as part of a larger pattern of antisocial behavior. Women were diagnosed more often as having major depression, and their depression symptoms improved much more slowly than men's symptoms when drug free. These findings suggest that, after becoming drug free, women cocaine abusers initially may experience more residual problems such as depression and job dissatisfaction than men. Drug treatment centers should be alert to possible differences based on gender.

1.27 Intake and Diagnosis of Drug-Dependent Pregnant and Postpartum Women

Moderator: Shirley Coletti

Speaker: Shirley Coletti

Operation PAR united research and practice about 4 years ago. This union heightened its credibility, enhanced treatment, and provided community researchers with an opportunity to do research with a community-based treatment program.

Until recently, the study of drug-dependent pregnant and postpartum women has been neglected. In the last few years, there has been a heightened awareness of issues dealing with drug-exposed infants and the lack of treatment services for pregnant women. Funding for services targeting this population also has increased.

In collaboration with Dr. Ira Chasnoff of NAPARE, Operation PAR conducted a prevalence study in 1989 of illicit drug use and alcohol abuse in one Florida county. The study found little difference in drug testing results between women who entered the private health care system and those entering public health clinics and between white and black women. This research highlights the fact that substance abuse is not limited to minority groups but reaches into all socioeconomic realms.

Speaker: Gene Burkett, M.D.

Jackson Memorial Hospital delivers approximately 15,000 infants per year, about 2,400 of whom are cocaine exposed. Cocaine directly affects pregnancy either via vasoconstriction mechanism, acute hypertension, fetal hypoxemia, or abnormal heart rate of infants. Any of these conditions can make pregnancy more difficult and influence outcome. Incidence of increased myometrial contractions often precipitates labor and causes injury to the mother and fetus. Decreased uterine blood flow determines prenatal abnormalities, and placental abruptions occur in many of these patients.

Most of the patients are American born or have been in this country for a long period of time and range in age from 20 to 34 years. Most began by smoking cigarettes in their early teens and continued on with the use of polydrugs. Drug binges are not uncommon. The total number of term pregnancies in cocaine users is less than one-half of the normal population. The conclusion is that sex, cocaine, and pregnancy do not mix.

Careful history taking is the key to diagnosis. The history should be thorough, nonthreatening, and nonjudgmental. Drug testing should be used as a backup rather than as a criterion. Careful evaluation of risk factors (e.g., excessive cardiac symptoms) ferrets out patients who continue to deny their drug history. A comprehensive psychosocial intake instrument, in conjunction with findings of social workers and drug counselors, is needed. It also is important to determine the patient's Addiction Severity Index rating, whether the pregnancy was planned, and the woman's attitudes and family situation.

The Prenatal Substance Abuse Clinic (PRESAC) and the Interconceptional Care-Gynecology Clinic (ICGC) were established to educate and care for pregnant women. Since most of the women are seeking health care for themselves (and not necessarily for their unborn child), programs targeting mother-child bonding are important. Pregnant women are asked to keep a daily record of fetal movement. Three levels of ultrasound, for graphic demonstration of the fetus, are used to relieve the mother's anxiety and to enhance reattachment to the infant after birth. Incentives, such as free lunch tickets at the hospital, provide for dietary needs and education.

Barriers to treating these patients include a drug-using mate, lack of knowledge about treatment alternatives, insufficient funds to pay for treatment, inadequate diagnosis, insufficient hospital beds for this population, child custody concerns, and patient denial.

Speaker: Maria Aguiar, M.P.H.

The Mom's Project, funded by NIDA, is an outreach project for HIV-risk reduction in the Boston area. The program's target population is mostly pregnant African American women who are poor, young, and active drug users. Many have not had prenatal care. These women have marginal living conditions and income, at best; 20 percent have unstable homes, and 18 percent are homeless. Many fear losing custody of their child, lack trust in health care providers, and fear recriminations due to their drug use and pregnancy state.

Project goals are (1) to reach pregnant women who are IV drug users, partners of users, or women of multiple sex partners; (2) to gather data on sexual and drug use behaviors to gain more knowledge about HIV (by administering the AIDS Initial Assessment Questionnaire); (3) to engage women in activities to reduce their risk of infection and transmission; and (4) to provide information about support services and facilities for prenatal care, medical care, drug treatment, and other community-based services.

Four outreach workers, African American women in recovery, go out into the streets, housing projects, malls, welfare and social service offices, and laundromats to find women at high risk. These workers are committed, supportive, and nonjudgmental. They help clients to obtain services so that the women can learn to help themselves. In addition, clients need to be educated about their reproductive and prenatal health so they can play a more active role during pregnancy.

Moms' Project offers short-term intervention (as little as 15 minutes), longer term counseling (45 minutes to an hour or more), and a five-session health education curriculum which continues with a support group option.

Speaker: Kattie Portis, M.A.

Health services have not been available to black and Latino women who are drug dependent and pregnant; for example, 81 percent of the women admitted to publicly funded treatment facilities in Massachusetts are white. Women Inc., founded in 1973 and funded by NIDA, was created in response to community needs. Its purpose was to explore alternative treatment modalities for women.

The Women, Inc., staff is composed of former addicts and is primarily female. The premise is that former addicts can best help drug addicts because they have been there and now serve as role models. Substance abuse is only a symptom of a complex system of social impediments. The targeted population has to fight poverty, relative deprivation, inadequate educational and vocational opportunities, racism, sexual discrimination, and lack of responsive services. In addition, these women must face childbearing responsibilities.

Women, Inc., combines direct drug treatment and skills building with activities to inspire self-awareness, self-esteem, a sense of dignity, and an understanding of sociocultural and political factors affecting everyday life. Women, Inc., has dispelled the myths that women do not want treatment and that treatment combining alcohol and drug abuse does not work. In a cooperative venture, Boston City Hospital provides prenatal services and Women, Inc., provides substance abuse services. Most women come because of the outreach efforts and are in their first trimester.

Recommendations for the future include access to health care, treatment on demand, permanent housing (not just shelters) to keep the family together, parenting sessions, adult literacy programs, and dropout prevention for high school students. The "quick fix" approach is not the answer to this crisis.

1.28 Treatment for Pregnant and Postpartum Women and Their Infants

Moderator: Janet Mitchell, M.D., M.P.H.

Speaker: Janet Mitchell, M.D., M.P.H.

Although the principal drugs of abuse have changed, the needs of pregnant drug abusers are the same. While awaiting an opening in a residential treatment program, a woman who seeks treatment should be given outpatient services. Service providers should bring services to nonthreatening sites (such as Women, Infants and Children programs) to help, but not force, women to seek treatment.

Speaker: Ira Chasnoff, M.D.

Research in the field of substance abuse in pregnant women depends upon the provision of clinical services to obtain a study population. The evolution of comprehensive programs in the State of Illinois began with the provision of clinical services. The Illinois model was developed because 5 years ago, the National Association for Perinatal Addiction Research and Education in Chicago was serving approximately 100 to 150 women per year, but 98 percent of the drug-using pregnant women in the State were not being served.

A needs assessment revealed a lack of physicians willing to work with this population; those who were willing needed education to work with drug-using pregnant women. Training was supported by the Illinois Department of Child and Family Services (DCFS) and the Department of Alcohol and Substance Abuse (DASA), which administers Federal block grant monies. Training was required for all staff in programs funded by DASA, DCFS, and the Department of Public Health and for physicians receiving medicaid reimbursement. It comprised two 1-day sessions on successive days to accommodate all staff in three areas of the State.

Once this training was completed, treatment slots opened up and a public education program was begun that included press conferences, posters and printed materials, and the toll-free Cocaine Baby Helpline. To eliminate stigma associated with drug abuse, the brochures focused on healthy pregnancies and referred readers to the helpline, which in turn provided anonymity while allowing no one—not even "friends"—to hang up without referrals. Followup showed that 50 percent of those referred actually sought treatment. The helpline was especially effective in reaching adolescents—8 to 10 percent of the callers. Centered in Chicago, the referral network ensures that treatment programs are meeting needs and that treatment slots are open.

The single most important facet of treatment is obstetric services followed by linkage with drug treatment. In Illinois, obstetric services may be paid by medicaid; the coordinated drug treatment is funded by DASA. Special emphasis is placed on parenting skills training, which is provided by DCFS. Spending money for this training reduces the cost of following the children later. Public aid pays for followup health care services to the children and mothers. In working with the at-risk child or nonparticipating mother, DCFS is used for case management so that just one social worker from one agency is involved in tracking parents and making home visits.

Speaker: Loretta Finnegan, M.D.

Caring and knowledge delivered through social work, medicine, perinatology and neonatology, drug abuse treatment, administration, and fund development are part of the multidisciplinary approach to treating drug dependency and pregnancy. No matter what the drug of abuse, the milieu is important. Individual and interpersonal treatment are essential to deal with family dysfunction, social issues, legal problems, employment failure, alcohol and nicotine use, and medical illness as well as illicit drug use.

Women substance abusers are a large contributor to the Nation's overwhelming problem of infant mortality. They need care, the earlier the better—if not prenatal, then beginning at delivery. Low birthweight associated with premature birth and intrauterine growth retardation occurs with all of the psychoactive drugs. The hospitalization of these small babies provides an opportunity to work with their mothers and begin treatment, which is more difficult than treating the addicted newborns.

Drug-dependent women must be treated as individuals with many problems. Studies show that 82 percent of women drug abusers are children of parents who abused alcohol or drugs or were mentally ill; 70 percent have been sexually abused by age 16. Treatment designs must take into account biology and physiology, comprehensive prenatal assessment and services (including HIV counseling and testing), nutrition, behavioral and cognitive issues, and life management skills. For example, pregnant addicts can be successfully treated with methadone or with other medications for psychiatric conditions, but breast-feeding is discouraged, because of the risk for HIV and drug effects. Bilingual or bicultural staff can provide comfort when addressing vital sociological, cultural, and demographic issues. Questions of survival—e.g., medical status and homelessness—must be addressed before dealing with drug abuse.

The only option other than placing the newborn child of a drug-abusing mother in foster care is to send the child home. Multigenerational alcohol and drug abuse problems put such mothers and infants at risk for poor attachment. Programs must address this issue as well as early intervention, keeping in mind that women will continue to bear children. Outreach is essential to provide support for mothers with substance abuse problems, to offer transportation, and to help negotiate the health care system, for example. Even with the successful use of residential programs for women and children, intensive aftercare is necessary. Although drug-abusing women are the focus of Federal attention and interagency programs, the needs of children of drug-abusing women must be a priority. These Federal and interagency programs must meet the specific needs of the States and communities.

Speaker: Harvey Landress, A.C.S.W.

The development of comprehensive substance abuse programs requires long-range vision of a service continuum, definition of purpose, and creative fund development. Although treatment and prevention are inextricably linked, they may be mutually exclusive from a funding standpoint. For example, the most effective prevention for children may be treatment of their mothers. Funded in the first round

of the OSAP High-Risk Youth Grants Program, the 4-year-old Operation PAR program in St. Petersburg, Florida, has 41 direct service personnel who offer comprehensive services to drug-exposed infants and preschool children. In the process, the program provides case management for their mothers.

Built upon an 80-bed, long-term residential care program with NIDA research funds and State block grant funds, another PAR program includes onsite child care within a therapeutic community model. This program, staffed with 14 people, randomly assigns mothers, with their children, into treatment and control groups. Participants are housed in 8 of 14 three-bedroom homes purchased and renovated with local support. A short-term residential PAR program is being developed to identify and address barriers such as fear of prosecution and persecution as well as multicultural issues. Four full-time equivalent staff members' services to pregnant and postpartum women are partially funded by NIDA with local support from the United Way for outreach services.

Funded through OSAP, a PAR center-based model with 10 staff members also has block grant and local funding to contract for facilities and transportation through agencies specializing in family day care. This program provides a home and training for the parents. Intensive case management is very significant in this and all of these programs. Engagement of the target population, which is essential for delivery of services, may require eight or more contacts to get a client to even consider services.

The Administration for Children, Youth and Families provides additional funding through a Boarder Babies Grant to help PAR find appropriate placements for children whose home environment is not safe. Comprehensive intervention for the mothers of these children is needed to reduce the risk of future pregnancy. Five staff members seek clients in places where women are likely to go, regardless of drug abuse problems—e.g., Food Stamp offices.

Providing an array of programs with elements of research, education, treatment, and prevention requires intersystem control. Administrators who attempt to develop and mold such programs must be adept in contract management, creative planning, and communicating with a variety of agencies and community funding sources.

Speaker: William Stone

Following 20 years of denial and avoidance in the field, crack cocaine problems have left New York City women and children in a state of devastation and crisis. There are 3 narcotic users for every 100 people, and more than 100,000 children are addicted to illegal opiates (more than 10 to 15 percent of births in some hospitals). Multifunding mechanisms are now available to treat pregnant and postpartum women.

The Odyssey House family center program, Mothers and Babies Off Narcotics (MABON), was established in 1971 as a traditional therapeutic community (TC) model that also includes services such as parenting skills groups, triangle (mother-child-staff) time, child care, and onsite medical services for pregnant, addicted women with children under age 5. The program serves both adult and adolescent mothers, a large number of whom are homeless. A profile of residents shows that a high percentage of children in these families, in which substance abuse is the norm, are at risk for becoming third-generation substance abusers. Incest and

rape are highly prevalent but accepted by these clients. Educational efforts with these families stress the fact that theirs is not a normal existence.

Six-month waiting lists are common, and clients often must adapt to different programs as space becomes available. The Odyssey House residential programs have very high retention rates for women—e.g., 68 percent in the Family Center in 1989. Because barriers have been reduced, the number of women in these TCs has increased from only about one in three women to 43 percent. Women who hope to get their children into the center often come alone at first; however, children are often the reason the mothers stay in the program. The women's problems include high risk for AIDS attributable to prostitution (21 percent), IV heroin use (18 percent), and IV cocaine use aside from crack use (5 percent); 46 percent have had sex with an IV drug user.

Odyssey House has three new treatment models for use with women and children: (1) an urban treatment program in East Harlem; (2) a suburban facility, Odyssey Manor, in Rockland County; and (3) Odyssey Campus, a program featuring an instructional format and college setting planned for upstate Wayne County. Odyssey Campus also will incorporate services from five other substance abuse treatment providers.

1.29 RESIDENTIAL PROGRAMS FOR WOMEN

Moderator: Gloria Weisman, M.A.

Speaker: Gloria Weisman, M.A.

The AIDS epidemic has made abundantly clear the responsibility to locate people who need treatment but may not be accessing it. Of almost 9,000 out-of-treatment, injection drug-using women located through NIDA's AIDS Outreach Program, 37 percent went into treatment, compared with 25 percent of the men located. Women are making behavioral changes to reduce the risk for AIDS but unless programs can really make a difference in their lives, these behavioral changes will not be sustained over time.

Among treatment models, one of the most effective is residential treatment that includes families. Issues which must be addressed are issues of abuse, rape, violence, and victimization as part of the experience of most drug-using women, whatever their ethnic or socioeconomic group. Attention to these issues, as well as to health care and parenting, must be seen as an integral part of effective treatment. Treatment providers must take the lead in advocating for more programs to meet the complex treatment needs of women.

Speaker: Kattie Portis, M.A.

Motivation and acceptance of the full program are key to the success of clients who enter Women, Inc., of Boston. This community-based program is not a therapeutic community; rather than being confrontational, it focuses on helping clients put their lives back together. The first phase of treatment is seen as a period of adjustment. Social workers help these drug-abusing mothers locate children who

have been taken away from them, take care of court cases (ranging from credit card and bad check problems to robbery), connect with health services (without children, they are ineligible for medicare), and detoxify. At this stage, the women are often reluctant participants in treatment.

After the critical first 3 months, most of the women move into the second phase, although some require an extra month. In the second 5 months, women, who have until this point been allowed only visits from lawyers and social workers and weekly supervised visits with their children, must decide if they will be reunited with their children. Visits from boyfriends, who themselves may be on waiting lists for treatment and may receive some benefits from counseling, continue to be subject to restrictions. During this phase, in which the children may live at the program, there is intensive counseling on issues such as sexual abuse and incest: the women concentrate on developing parenting skills and learning to negotiate with schools on behalf of their children with special needs. Clients may accept or reject social workers, whose attitudes are crucial to outcome. Some social workers may serve as cues to the former drug-using environment or fail to engage the clients.

Once the women, with the help of their peers, decide that they are ready to move into Phase 3, they can work on vocational skills and other facets of reentry. Work with the children is important because many of them need friends with whom to share their feelings and fears. The best part of the Women, Inc., program is its family-oriented graduation. The families are followed for 1 year after program completion, with urine testing and group meetings for the women (including a support group for those who are HIV positive) and special sessions for the children.

Speaker: Nancy Jainchill, Ph.D.

Women as well as men can succeed in therapeutic communities (TCs), which are not merely confrontational but offer healing environments. The ratio of men to women in TCs traditionally has been about 3 to 1; however, in recent years more women have entered these programs. These women are usually younger than the males and come from more deviant family backgrounds.

In a national research project, the admissions personnel of 7 TCs completed detailed interviews with 650 men and 150 women during the first week of treatment. Almost 75 percent of the male patients, versus 50 percent of the female patients, reported good relationships with their mothers in the 6 months before treatment. Similarly, 82 percent of the men, but only 60 percent of the women, felt their mothers were there when needed. Relationships with fathers were characterized as poor by clients of both genders. Feeling accepted and loved by parents as a child was reported by nearly 84 percent of the men and 71 percent of the women. More women than men (37 versus 21 percent) had attempted suicide. This is consistent with higher suicide rates among predominantly white populations.

Among 2,000 admissions between 1985 and 1986 to large, urban residential TCs, serious depression (27 percent in females and 9 percent in males), phobic disorders, treatment-related psychological disorders, and psychosexual dysfunction were much more prevalent in women; however, men were characterized more often as having antisocial personalities. Comparison of three cohorts of TC admissions (1974, 1979,

and 1984) revealed some gender and ethnicity differences in terms of demographics and major gender and ethnicity differences in the distribution of drugs, which changed from primarily opiates to cocaine over the 11-year period. Cocaine users appeared no worse psychologically than heroin users at admission. Both males and females were deviant at entry but showed one-third less gender difference after 6 months' treatment, indicating a larger improvement for women than men which may be due to self-stigmatization. Because drug-abusing behavior is less socially acceptable for females than males, women enter treatment with lower self-esteem. Given equal opportunity (stopping drug use and TC work to remove social role differences), women may begin to see themselves as psychologically equal.

Speaker: Naya Arbiter

Most early drug programs were designed for men. Women's concerns began to garner NIDA's attention beginning in 1974; in 1976 Public Law 94-371 granted priority to funding for women's treatment programs. However, children were not included, and women remained tragically underserved. The results of 30 years' indifference to the problems of drug abuse in women is evident. For example, the California Institute for Women, built to house 900 women in 1952, now houses 2,600 women; 70 children are born there monthly. Of women arrested in 1989, 90 percent in Philadelphia and 69 percent in Phoenix tested positive for drugs. Due to a lack of treatment programs, judges frequently send such women back into the streets. The 90 women in 1 jail-based drug abuse project had 164 children. In an adolescent prison population where 39 percent had incarcerated parents (usually mothers), the youths' drug use had begun at age 9. Drug use problems are multigenerational.

In 1981 the Amity Program began by taking over a small residential program and turning it into a teaching and therapeutic community. Staff members are hired because of their expectations for clients, their recognition that clients may be learning certain things for the first time, and their affirmation of clients' small changes. Staff must be willing to build schedules around the needs of residents in the community and to consider the rights of children. Based on the life process rather than a disease model, the program is holistic rather than medical. Clients gain from being participants rather than spectators in the treatment process. Identification with role models among staff and community members offers clients hope. When clients begin to engage, their chances for retention increase, and, proportionate with the length of stay, the likelihood of successful outcome also increases.

Of 149 women in the Amity program, court-enrolled mothers who had children with them in the program all graduated; mothers whose children were not in the program had the poorest outcomes. The 35 women entering the program in 1989 had a combined history of 21,000 different sexual encounters over a 2-year period and were the mothers of 41 children; 24 of these women were IV drug users. This year, 55 women with an average age of 27 reported an average of 4 rapes prior to age 21 and 6 rapes after age 21; their 19,000 sexual encounters included many sex-for-drugs exchanges. The implications vis-a-vis AIDS are indisputable. In the War on Drugs, indifference to women and their children may ultimately be very expensive.

Speakers: Shirley Coletti and Nancy L. Hamilton, B.A.

Drug abuse is a multigenerational problem that, were it not for past neglect, would not have assumed its present level. Confrontation and abusive treatment elicit only external change. A nurturing environment is more likely to help clients who have proven their strength by surviving physical and mental abuse. Such an approach is used by the 4-year-old PAR juvenile services program in St. Petersburg, Florida. PAR began as a nonresidential program of 90 adult patients, of whom 20 percent were female. Now one-third of 141 adults in the program are women. The women and their children live in eight renovated houses on 8½ acres. The 20 children, between 3 days and 15 years old, have problems that include learning and physical disabilities, behavioral disorders, and failure to thrive—the scars of incest and physical and mental abuse. They benefit from a child development center and after-school activities while their mothers participate in TC activities.

Mothers may find this program stressful. Participation in activities is required, even for pregnant clients. Parenting skills are critiqued constantly by 140 other clients and 60 staff members. However, many of these mothers begin with skills deficits and lack role models. This program supports their efforts to assume responsibility for their families. Several solutions have contributed to their success during relatively short (under 1 year) stays in the program. For example, certified babysitting courses increase participating residents' parenting and human response skills; provide relief for mothers and staff members; and encourage greater investment in women, children, and treatment issues by the community as a whole, including staff and administrators. Special activities for women include family sessions, significant other groups, and lifeskills classes. Activities for older children—pajama parties, for example—are planned to include friends from "normal" families. The program's activities establish traditions which are very important.

Although the presence of children in the TC has raised issues, such as safety and the use of proper language, it has strengthened the program. Retention rates have increased for both men and women who, through investing themselves in the welfare of the children, receive a renewed sense of hope and purpose. Grief groups have been established to deal with residents and staff members who become attached to the children and are disturbed when mothers quit the program and children must be removed by the State.

1.30 Drug-Exposed Young Children

Moderator: Edward Kaufman, M.D.

Speaker: Edward Kaufman, M.D.

Adult children of alcoholics (ACOAs) have been studied for some time, but little research to date has investigated adult children of drug abusers (ACDAs). Clinically, no substantial difference appears to exist between the two groups, but those differences that do exist depend more on lifestyle, cultural factors, ethnicity, and drug use patterns. For example, an ACDA raised in the inner city by a heroin-using parent would be very different from one raised by a middle-class, prescription drug-abusing

parent. In our Orange County, California, study with ACOAs, we found that the ACDA subset tended to exhibit more antisocial personality characteristics and narcissism.

Speaker: Vicki Weatherford, Ph.D.

Much clinical evidence suggests that ACOAs/ACDAs are profoundly influenced by their childhood environment. Our study examined family-of-origin cohesion and communication patterns, as well as familial abuse patterns among ACOAs/ACDAs. Their risk for Axis II disorders and replication of family dysfunctional patterns also were explored. Sixty ACOAs (aged 22 to 61) participated in the Orange County study; 30 percent also had a drug abusing parent(s). Forty percent of all subjects had never been in therapy. Our findings are summarized as follows:

- Sixty-four percent of the ACOAs/ACDAs, 45 percent of their siblings, and 52 percent of their children had substance abuse problems. Almost three-fourths of the subjects married substance-abusing spouses.
- Among ACDAs, in 82 percent of the cases, the mother was the primary drug abuser, although 35 percent of the fathers also abused drugs. The mothers tended to abuse prescription drugs.
- Forty-one percent of the ACDAs were sexually abused by a parent. Of the total ACOA/ACDA sample, 80 percent were emotionally abused; 35 percent, physically abused; and 23 percent, incestuously abused. These abuses were strikingly replicated in ACOAs'/ACDAs' marriages. Thus, clinicians need to be aware of ACOAs'/ACDAs' significant abuse risk as children and adults.
- As children, 90 percent of these subjects were exposed to significant marital discord; 86 percent were exposed to violence when the parent was under the influence; 66 percent tried to rescue their parent from alcohol and drugs; and 68 percent were caught in the middle of parental arguments.
- A disturbing finding was that 78 percent felt unloved by the substance-abusing parent. This feeling impacted the ACOAs'/ACDAs' self-esteem, self-confidence, and self-worth.
- Ninety-four percent of the ACOAs/ACDAs described their childhood families as disengaged (i.e., there was very little family closeness or family support while growing up).
- Given oft-reported social isolation, poor family communication, and little family closeness, we believe that ACOAs/ACDAs might be at special risk for Axis II disorders. Indeed, 65 percent met DSM-III-R criteria for at least one Axis II disorder—36 percent for more than one. Sixty-three percent had Borderline Disorder or traits; 55 percent had Self-Defeating Disorder or traits. The pattern was similar for the ACDA subset.

- ACOAs'/ACDAs' alcohol use and poor family-of-origin communications were related to the number of Axis II diagnoses for which ACOAs/ACDAs met criteria.

Based on these findings, we formed a program for 6- to 8-year-old children of substance abusers. Given these children's unpredictable families and their frequent social isolation, they often present with low self-esteem and poor social skills and often do not feel safe sharing their feelings.

Our children's group goals have been: (1) to provide predictability through consistent group structure (i.e., share time, activity time, snack time), through rituals (i.e., celebrating holidays, birthdays, year-end graduations), and through consistent and fair reinforcement of group-defined social rules; (2) to increase self-esteem and empowerment (through sharing successes, receiving feedback, and focusing on the child's strengths); (3) to provide a safe place to identify and trust feelings (via feelings charades, puppet shows, group sharing, and feeling activities); and (4) to learn problemsolving and social skills.

Parents are required to be in a recovery program and to participate monthly in the parents' portion of this program. Our results, based on a 3-year pilot study, have been tremendously encouraging.

1.31 Adolescent Screening and Diagnostic Assessment Tools

Moderator: Elizabeth Rahdert, Ph.D.

Speaker: Elizabeth Rahdert, Ph.D.

NIDA is interested in establishing a set of standardized assessment tools which, if widely used, could provide a common language across different types of treatment sites. Therefore, NIDA has supported the development of the Adolescent Assessment Referral System (AARS) which contains both screening and diagnostic tools designed specifically for adolescents. Basically, screening instruments help identify problems that bear further examination, whereas diagnostic instruments assist in individualizing treatment plans.

The AARS contains all the appropriate materials associated with assessment and treatment referral for youth between 12 and 19 years of age. The AARS, which is available through NCADI, includes the following:

- Initial screening for problems in 10 functional areas with the Problem Oriented Screening Instrument for Teenagers (POSIT);
- Diagnostic assessment with the Comprehensive Assessment Battery (CAB) in functional areas identified by POSIT;
- Diagnosis established based on CAB results; and
- Treatment plan developed using local directory of adolescent services.

Speaker: Adele Harrell, Ph.D.

The Adolescent Drinking Index (ADI) is a standardized, quick, and simple screening tool used to identify alcohol-abusing adolescents who need referral for more intensive assessment.

The instrument identifies drinking problems in four areas:

- *Control over drinking.*—Does the adolescent get drunk or drink before school?
- *Social adjustment.*—Has the adolescent been in fights or been arrested?
- *Psychological symptoms.*—Does the adolescent use alcohol to feel better?
- *Physical symptoms.*—Has the adolescent experienced memory loss?

The ADI contains a 24-item, self-administered questionnaire; takes the teenager 5 minutes to complete, preferably without the presence of his/her parents; and is written at a fifth-grade reading level. The rating scale format helps identify the severity and frequency of substance abuse symptoms. Adolescents who score on 15 or more items should undergo further assessment.

Developed to screen the presence of alcohol abuse in adolescents with psychological, behavioral, or emotional problems, the ADI's wording recently has been revised to detect drug-abusing adolescents. The revised version is not yet available.

Speaker: David Metzger, Ph.D.

The Problem Severity Index (PSI) was developed at the request of the Juvenile Judges Commission in Pennsylvania. Judges in this State see approximately 30,000 juveniles each year and are responsible for identifying problems and directing offenders into appropriate treatment.

This tool assists juvenile probation officers in identifying adolescents with substance abuse and other related problems. Specific objectives that guided the tool's development were that it be behaviorally oriented, interview based, and multidimensional, and have an automated scoring system.

The PSI yields two types of scores in each of the seven areas. The first, a composite score, is an objective and qualitative measure of the risk factors within each area. The second, a severity rating, includes the interviewer's objective and subjective assessments in regard to the future needs of the adolescent:

- *Level one.*—"No need for action at this time";
- *Level two.*—"Needs periodic monitoring due to a potential problem";
- *Level three.*—"Needs professional intervention"; and
- *Level four.*—"Needs immediate attention due to a serious problem."

The PSI is a semistructured interview, can be administered in approximately 45 minutes, and has automated scoring. A 6-hour training session for interviewers is recommended.

Speaker: Ken Winters, Ph.D.

The Minnesota Chemical Dependency Adolescent Assessment Package (MCDAAP) is a battery of valid, standardized, and psychometrically sound tools used to identify and refer drug-abusing adolescents to treatment. The battery covers all forms of substance abuse, is "user friendly," and consists of three separate tools.

First, the Personal Experience Screen Questionnaire (PESQ) assists in identifying drug-abusing adolescents and permits routine screening in high-risk environments. This screen is highly predictive of teens who need further assessment. The PESQ contains a 38-item, self-administered questionnaire; takes approximately 10 minutes to complete; is written at a fourth-grade reading level; and is a paper-and-pencil test. (Norms are provided by age and sex for both drug clinic populations and regular high school samples.)

Second, the Adolescent Diagnostic Interview (ADI) assesses psychoactive drug use disorders and evaluates psychosocial stressors, school and interpersonal functioning, and cognitive impairment. It also probes for other problems associated with substance abuse and rates reading level and memory. The ADI is a structured interview, takes approximately 45 minutes to 1 hour to complete, and can be scored by hand or computer.

Third, the Personal Experience Inventory (PEI) provides a complete profile of each adolescent's drug use and personal problems. As a diagnostic tool, it allows for an individualized treatment plan. The PEI has onsite scoring for immediate results, but it also provides details for commercial scoring which returns a detailed report and treatment guidelines and has a full-color profile form. School and drug clinic norms are included for comparative purposes.

The PEI is a 276-item, self-administered questionnaire; takes approximately 45 minutes to 1 hour to complete; is written at a sixth-grade reading level; and can be administered on a microcomputer. Contact Western Psychological Services, Los Angeles, California, for PEI protocol and test administration recommendations.

1.32 Family Therapy for Drug-Abusing Adolescents

Moderator: Elizabeth Rahdert, Ph.D.

Speaker: Brenna Bry, Ph.D.

The Targeted Family Intervention program focuses on individual behavior rather than on personality characteristics. Behaviors, overt and hidden, are a function of their relative consequences. Insufficient negative sanctions as a result of adolescent drug use or insufficient ways to process positive feedback initiate and perpetuate adolescent drug abuse.

Early on in treatment it is important to determine whether environmental inconsistencies exist in the home. Parents often apply sanctions inconsistently, neutralize each other by disagreeing, or select such negative sanctions that the child tunes out. The Genogram, which gives a broad picture of an individual's family and social environment, is a good tool for providing this type of information.

During therapy parents are encouraged to be consistent in applying sanctions to their child's misbehavior. Families are trained to develop negotiating and problemsolving skills. Parents begin to feel positive about their child because they see positive results in their child's behavior, and the teenager starts to feel positive, because he/she is exercising some control.

The program's hallmark is the attention paid to daily details. It is, therefore, important to access not only what is going on in the home but also what is going on in the school. This can be accomplished through detailed discussions with the child's teachers.

Speaker: Howard Liddle, Ed.D.

Multidimensional Family Therapy is derived from structural-strategic therapy. It draws from both contemporary family therapy models and psychotherapy traditions in that it directs treatment according to clients and their problems. It focuses on the multifamily system, its values, and surrounding influences.

Multidimensional Family Therapy targets four main realms of interconnected human functioning: (1) cognitions, (2) emotions, (3) behaviors, and (4) time (past, present, and future).

In this type of family therapy, parents as well as adolescents spend time alone with the therapist. In this way, a working alliance with the parents and the adolescent is established. It also is important to help family members focus on strengths and competencies that exist within each family member and understand that forgiveness is a necessary part of the healing process.

Therapists help adolescents by creating a personal agenda for them, showing them respect, helping them develop and establish their position with their parents, and explaining to the teenagers how their relationship with their parents and other family members can change.

Speaker: Jose Szapocznik, Ph.D.

Structural-Strategies Family Therapy (SSFT), like Brief Strategic Family Therapy, views adolescent drug abuse as part of a syndrome or larger constellation of problem behaviors within the family context. Developed from the mainstream of family therapy work, SSFT is particularly appropriate for use with Hispanic families because interaction is basic to the Hispanic culture.

Family members are interdependent and have an interactive pattern which shapes the behavior of each member over time. How a family interacts is related to many adolescent problems such as drug abuse. If parents are not able to apply contingencies, adolescents display disruptive behavior which impacts on the family, causing more stress. Parents begin to fight with each other and are unable to make rules together to successfully limit the adolescent's behavior. Thus, a vicious cycle continues. Family therapy focuses on breaking this cycle by teaching parents to form a strong alliance, to develop and articulate clearly defined consequences for clearly defined behavior such as the use of illicit drugs, and to act on their joint decisions.

1.33 Drug Abuse Treatment Models for Prison Populations

Moderator: Nicholas Demos, J.D.

Speaker: Nicholas Demos, J.D.

Programs for which OTI funding is planned in Fiscal Year 1991 include (1) the Juvenile Justice and Adolescent Treatment Demonstration Program for institutional and community-based treatment services for juveniles, (2) Prison/Jail Treatment Demonstration Project, (3) Nonincarcerated Criminal Justice Populations Projects, (4) Correctional Treatment Standards program to develop and incorporate alcohol and other drug standards in the American Correctional Association accreditation process, and (5) National Training for Addictions Counselors program for entry-level addiction counselors.

Speaker: James A. Inciardi, Ph.D.

The history of treatment in corrections is largely undocumented. The earliest program was a 1912 detoxification program at the Tombs Prison in New York, which targeted opium smokers and heroin addicts. The next effort was the Narcotic Farms Program of the 1930's, which was basically a detoxification program followed by mandatory farm labor. The late 1960's saw the emergence of therapeutic communities (TCs), and the 1970's saw treatment communities begin to emerge around the country. However, the real beginning of treatment programs in corrections was in the 1980's.

Reports show that in August 1989, 85,000 persons, representing 12 percent of the population, were in correctional treatment programs and that there was a waiting list of 25,000 others. There were few structured programs, TCs, or other residential programs away from the rest of the population.

The Assertive Community Treatment (ACT) program, implemented in Delaware, is based on a continuity of care model applied to the chronically mentally ill released to community settings in the 1970's. The program's focus is on helping the clients reenter the community by providing material, interpersonal, and moral support in education, vocational training, use of leisure time, and self-care in dealing with the stresses and pressures of interpersonal living.

The basic components of the program include (1) counselors actively keeping in close touch with the clients through numerous face-to-face contacts; (2) staff members being available to clients at all times in the form of treatment teams; (3) counselors having access to instrumental support (job training, rent and food money, tools for work, transportation, child care, etc.); and (4) conventional methods of treatment, rehabilitation, relapse prevention, group support activity, etc.

ACT programs with the mentally ill generally have positive outcomes. When compared with matched control patients, those in ACT programs have better occupational outcomes, live in residential settings longer, and are less likely to be rehospitalized. With parolees, the expectation is that, at some point, the services will no longer be required.

Speaker: Alan J. Beck, Ph.D.

At the State level, 471,000 adults were arrested for drug violations in 1980, 25 percent of them for trafficking, importation, or manufacture. In 1989 the number rose to 1,200,000 with a fourfold increase in trafficking charges. At the Federal level, 7,000 suspects were processed in U.S. District Courts on trafficking charges in 1980, compared to 20,000 in 1988.

In the State courts, there was a 46 percent increase in felony convictions on trafficking charges from 1986 to 1988. Trafficking constituted 17 percent of all felony convictions in state courts in 1988, and possession constituted another 17 percent. At the Federal level, drug-related convictions increased almost 300 percent between 1980 and 1988. The probability of conviction for drug offenses increased from 73 percent in 1980 to 83 percent in 1989. In the State courts, 71 percent of the felons convicted of trafficking in 1988 were sentenced to a period of incarceration, either prison or jail, compared to 64 percent in 1986. At the Federal level, the probability of incarceration increased from 72 to 84 percent between 1980 and 1988. Thus, the probability of conviction and the probability of being incarcerated after conviction both have increased.

Another trend apparent in the data relates to the offenses for which persons are incarcerated. In 1986, 8.6 percent of State prisoners were serving time for drug offenses, while 16 percent of new admissions to State prisons were for drug offenses. Admissions to jails for drug offenses were estimated at 25 percent in 1989, compared to less than 10 percent in 1983. In 1989, 49 percent of Federal prison admissions were for drug offenses, compared to 27 percent in 1980.

In interviews with State prisoners in 1986, 35 percent said that they were under the influence of drugs at the time of their offense. Eighty percent had used drugs at some time in the past. Fifty-two percent had used heroin, cocaine, LSD, or PCP. Forty-three percent reported daily use in the month before their current offense, with 18 percent using two or more drugs. Most of those interviewed said that their drug use had begun after their criminal careers.

Based on a 1986 survey of State prisons, 30 percent of prisoners had participated in a drug treatment program, 12 percent in two or more programs. About 50 percent of those who had received treatment most recently received treatment while incarcerated. At the time of the interviews, 6 percent of the prisoners were in a program.

Current data acquisition efforts include the 1990 census of 1,000 prison facilities in which the Bureau of Justice is seeking information on the level of availability of treatment programs by type of program. The 1991 survey of 15,000 State prison inmates seeks data on kinds of programs, program availability, program duration, nature of programs, whether the programs were completed, and the length of time before the inmate returned to drug use. A new survey to be undertaken is directed toward parole and probation agencies and parolees and probationers. The survey will seek data on history of drug use and treatment.

Speaker: Harry Wexler, Ph.D.

For drug treatment to have an effect in a correctional setting, it requires at least 9 to 12 months of exposure to an intense program. Voluntary participation, within the context of a correctional setting, also is necessary. It is important that the therapeutic community or more intensive programs be in place toward the end of the period of incarceration, about a year before people are ready to leave. If set too early, the therapeutic effect is dissipated, and continuity is lost.

The principles of successful treatment programs include (1) identification and treatment of individual difficulties; (2) positive incentives to gain; (3) recruitment of clients from the general population; (4) reinforcement of positive social behaviors rather than the mere reduction of frequency of the negative; (5) establishment of clear rules in the program, with clear consequences and contingencies and opportunities to break the rules; (6) use of recovering persons as role models; (7) maintenance of the integrity of the program and the respect of corrections staff; (8) continuity of the intervention; and (9) collection and presentation of data demonstrating results for State legislatures.

Project Reform, operating from 1987 to 1990, was a two-phased project. The goal of the first phase was to establish long-term comprehensive planning. The second phase provided funding for a number of States to implement parts of the plan. Reform 2 is expected to be funded soon and will follow the same model as Project Reform. Reform 2 will provide technical assistance to 14 States and will include site visits, extensive phone contacts, 2 national workshops annually, newsletters, and a handbook detailing the steps to establish a continuing drug treatment program. A significant long-term goal of this project is to develop a legislative initiative to take to Congress.

Speaker: Rod Mullen, B.A.

Among the countries of the world, the United States has the greatest number of people incarcerated. The greatest cause of prison population growth is the 16 billion drug-related crimes committed annually. Because drug abuse is an underclass phenomenon, we are creating a prison camp for the underclass.

Several projects have been based on the TC model, including the Stay'n Out, Cornerstone, New Outlook, and Right Turn programs. Stay'n Out deals with tough clients. Most have been in two or more treatment programs in the past and have been heavily involved with drugs since the age of 16. Program participation can significantly reduce drug use and criminality among the participants.

The TC model recognizes that people change not because they see the light but because they feel the heat. Because they have never learned values and conduct to enable them to function in society, they must be habilitated, not rehabilitated. An intensive program is needed.

The requirements of an effective prison-based TC include (1) establishment of a climate with physical and psychological safety; (2) establishment of an atmosphere of trust among program staff, institution staff, and participants; (3) use of role models; (4) role-playing opportunities for participants; (5) an understanding that

conflict is good; (6) a minimum of 9 to 12 months spent in the program; and (7) treatment at the roots of the problems, not just for the most florid symptoms.

2.01 Overview of Comprehensive Drug Prevention Programs

Moderator: Shirley Coletti

Speaker: Mary Ann Pentz, Ph.D.

Project STAR, a large multicommunity study of drug abuse prevention, has yielded several insights for successful development of community-based prevention programs. The project emphasizes a saturation approach over a period of several years involving schools, parents, community programs, and law enforcement officials. Activities include working with community leaders and encouraging them to discuss and define drug problems in the community, conducting a baseline survey of adolescent drug use, performing a needs assessment, and providing media publicity. In contrast to other programs in which researchers go into a community and deliver a program themselves, indigenous implementers representing mass media, schools, parents, local government, and other community resources are trained to deliver their respective components of Project STAR. The project emphasizes improved communication between parents and adolescents so drugs can be discussed and a community norm of no drug use can be developed. Major desired outcomes are reduced frequency of drug use and a reduction in the number of drug users. Press conferences are held annually over a 4-year period to report on progress in meeting the project's goal to reduce drug use by 2 to 5 percent each year.

Results of the project to date suggest the following as essential for success, whether a community is large or small, urban or rural: (1) an agenda that involves continuous involvement of mass media and (2) a sense of empowerment within the community and a readiness to take action.

Speaker: Jacqueline Butler, M.S.W., L.I.S.W.

Five factors must be taken into account in developing prevention programs for special populations such as black communities: (1) needs assessments must take into consideration the special needs and concerns of that population, (2) existing problemsolving styles in the population must be understood and incorporated into prevention programs, (3) relevant providers in the population must be identified, (4) acceptable outcomes for the population must be determined, and (5) a distinction must be made between first-order and second-order changes.

Problemsolving styles, which vary among races and ethnic groups, are natural processes that have arisen for historical reasons and have helped a population survive. It is important to identify and understand these styles so that they can be incorporated into prevention programs. Working with indigenous providers increases the chances of a prevention program's success. Increased awareness of drug risks and reductions in drug use are second-order changes and are insufficient if the community remains dangerous because of violence and other threats to the safety of all its inhabitants. First-order change also is needed, with a focus on systems, institutions, and

mechanisms that foster substance abuse. Prevention programs need to intervene in these first-order systems as well as in second-order behaviors in the population at risk.

Speaker: Gale Held

A primary new initiative in the War on Drugs is OSAP's Community Partnership Demonstration Grant Program. The program is intended to involve whole communities in a systems approach to dealing with alcohol and other drug use by adolescents. Criteria for grant approval and funding include participation by both the public sector (local government agencies) and the private sector (e.g., civic and fraternal organizations, businesses, religious groups, and media) as well as leadership that reflects the ethnic and racial composition of the community. Towns and cities of all sizes, as well as substantial subpopulations in very large cities, are eligible to compete for these grants.

A major aim of the program is to learn how existing resources for dealing with adolescent alcohol and drug use within communities can work together for greater effectiveness. Another program aim is to identify program elements that appear to contribute most to success so that they may be examined more rigorously by researchers. The emphasis is on community initiatives and community planning. Although the first year may be devoted to planning, program implementation is expected to begin by the second year and continue up to 5 years. Up to 10 percent of grant funds can be used for direct services since, in addition to providing needs assessments and training of local leaders, the purpose of the grants is to stimulate service provision by the community.

2.02 The Role of Research Information in Prevention and Public Education

Moderator: Susan L. David

Speaker: Edgar Adams, Sc.D.

The media and media campaigns clearly play an important role in increasing public awareness and focusing attention on the problems of cocaine use. U.S. patterns of cocaine use have changed significantly since the late 1970's. About 10 years ago, cocaine was considered nonaddictive and not particularly dangerous. In 1983 scientific opinion began to change. Cocaine use increased during the late 1970's, then leveled off, then increased from 1984 to 1986. In 1985 the National Household Survey on Drug Abuse found that 12.2 million Americans reported cocaine use. Subsequent surveys in 1988 and 1990 found significant decreases in past year use from 8.2 million in 1988 to 6.2 million in 1990. Hospital admissions for cocaine emergencies have increased since 1984, coinciding with an increase in cocaine smoking. After 10 years of increases in cocaine-related emergency room admissions, we are finally beginning to see decreases in the data.

Using the data from the National Household Survey on Drug Abuse (particularly statistics showing the highest rates of cocaine use among male, 18- to 25-year-old

polydrug abusers), NIDA decided to develop a media campaign on cocaine. Research information, including data from the national surveys, literature reviews, and focus groups, were critical in identifying the target population and developing an effective public education campaign.

Speaker: Mona Brown, B.S.

The media provide an excellent outlet for educating the public about drug abuse research. NIDA has developed several methods for educating the public through the media as well as through its own publications. Its educational publications include research monographs written by experts in particular drug-related subjects, research reports explaining recent research findings for the general public, a quarterly newsletter that summarizes recent research, various pamphlets and brochures, and films and videocassettes. These materials are distributed through NCADI.

NIDA's press program deals with thousands of newspapers, magazines, and radio and television stations comprising the major information media. Methods used by NIDA to educate the public include writing press releases summarizing new research findings; holding press conferences in connection with major developments, such as the release of the findings from the recent National Household Survey on Drug Abuse; informing the press of forthcoming research and other drug-related meetings and inviting reporters to attend; providing tours of NIDA research facilities and arranging interviews with investigators; and putting reporters in contact with experts best qualified to supply the information they seek. Appreciation of the importance of the media has led NIDA to provide training for key personnel in working with the media. People in drug research, treatment, and prevention should seek opportunities to get information to the media and are encouraged to get to know the reporters who cover drug abuse and health issues and to bring new information to their attention. People in these areas also must be prepared to respond truthfully and quickly when approached by the press.

Speaker: Candace Sullivan

Three major factors that have seriously limited the usefulness of NIDA-supported research to educators, policymakers, and practitioners are (1) a focus on questions that educators consider peripheral to their needs and concerns, (2) a bias toward carefully controlled treatment programs rather than testing multifaceted prevention models, and (3) researchers' use of a vocabulary that is not easily understood by most educators. Education policymakers and practitioners need research information targeted to their specific needs written by professional writers rather than by scientists. These policymakers and practitioners need to know what works, what will occur if specific actions are taken, and where and how resources are best applied.

Data showing benefits of prevention programs—such as higher graduation rates, reduced foster care, less imprisonment, lower incidence of admissions for drug treatment, and reduced medical and social service costs—are lacking. This is the result of insufficient emphasis on the complex interacting systems that educators must deal with. There is a need to study multifaceted programs that encompass schools, families, and community programs to learn what can affect behavior. Use of research

information by policymakers and educators would be increased by (1) connecting research outcomes with educational and social issues, (2) conducting research on overlapping risk factors and multifaceted prevention strategies, and (3) preparing research summaries for specific audiences.

Speaker: Robert Denniston, M.A.

Public preoccupation with the War on Drugs has peaked, making it necessary to be more aggressive in disseminating information about drug problems. Spreading health information is one of the most cost-effective ways for the Government to do this. OSAP's goal is to increase awareness and knowledge and ultimately change behavior. The focus is at several levels: the individual, family and peer, workplace, community, and legal and cultural environment.

Changing the legal and cultural environment to change social norms is a special focus at OSAP. Research has shown that perception of risk and peer disapproval are among the strongest factors that cause a shift in social norms regarding drug use. Changing social norms requires working with the mass media, the predominant information sources in our society.

OSAP's Division of Communications uses a social marketing framework in which the emphasis is on the wants and needs of the target audience. Three target groups are discerned: information seekers (those who call or write for information), the information resistant (those who need information but are not seeking it), and those involved in disseminating information (e.g., health professionals). Each group requires different services. OSAP, with assistance from the Outdoor Advertising Association and popular celebrities, has become involved in several national antidrug billboard campaigns to reach those who need the information but are not seeking it. One such campaign, conducted in 1989 and 1990 and aimed at inner-city youth in 50 major urban markets, proved very effective, reaching an estimated 36 million people and generating 30,000 phone calls for further information and referral.

2.03 Evaluating the Efficacy of Drug Prevention Programs

Moderator: William J. Bukoski, Ph.D.

Speaker: William J. Bukoski, Ph.D.

The most promising drug abuse prevention strategies are comprehensive in orientation, which complicates evaluation study design. A good evaluation model has three levels: (1) process research, (2) outcomes research, and (3) impact research. Process research is a methodological system of collecting data that validates the independent variable (e.g., program or treatment) as well as the underlying theoretical structure or mediating variables; why a program works is of as much interest as whether it works. Outcomes research determines whether a program accomplishes its intended objectives; its design should link changes in attitude, knowledge, or behavior to program exposure. Impact research measures the aggregate effect of a program that occurs over time in a designated geographic area; incidence and prevalence surveys should be supplemented by process research to identify drug-

specific factors that change before or are concurrent with changes in use. Ideally, all three levels of evaluation should occur simultaneously in a systematic and comprehensive fashion to measure effects as they occur and to capture the important dimensions and effects of drug abuse prevention programs as they are implemented.

Drug abuse prevention programs require a multicomponent approach. The mass media, schools, parents, community, and policy should coordinate not only to change direct skills and resistance to counteract pressure to use but also to address the indirect skills needed for parents and youth workers to support the message-communications and norm-changing processes. Peer involvement early in a program and environmental support for policy change are other important components of a comprehensive approach.

Variations and inconsistency among results reported by individual studies probably reflect methodological rather than theoretical problems in drug abuse prevention evaluation. The most important is sampling error, but also common are errors in reliability or measurement of the dependent and independent variables, errors due to dichotomization and problems with program validity or construct validity of the dependent variable, and errors in range variation of the dependent variable; errors also occur during data collection and processing. Potential sources of error should be monitored both during the design process and over the course of the study.

Speaker: William Hansen, Ph.D.

Understanding how a program is constructed in terms of its components assists in its evaluation and in placing the program in an overall perspective. A typology has been developed to classify programs by their primary components: knowledge, peer pressure resistance training, goal setting, life skills training, norm setting, stress management, self-esteem, decisionmaking, values clarification, peer counseling, and alternatives. A multiple approach is used by most programs, which can be arrayed into four major clusters based on the combination of components they use:

- Knowledge—values clarification programs;
- Affective education programs (emphasizing knowledge, goal setting, decisionmaking, values clarification, stress management, and self-esteem);
- Social influences programs (emphasizing knowledge, peer pressure resistance training, life skills training, and norm setting); and
- Comprehensive programs.

Selection bias threatens the validity of the evaluation. Problems arise when the school is used as the unit of assignment: the number of units that can be assigned to each condition is low, and demographics vary among schools; random assignment usually results in nonequivalence. Stratified random assignment, assessment of equivalence, and statistical control via analysis of covariates are solutions to selection bias.

Attrition limits statistical power. Differential attrition limits the ability to interpret the results. If attrition is greater in the control group than in the treatment

group, the likelihood of Type II errors increases. Attrition can be reduced by active followup to recapture subjects, and statistical analysis can help account for differential attrition.

Statistical power has become a popular criterion used to judge the evaluation component of prevention programs. Power refers to how much of an effect (e.g., reduction in use) must be accomplished to detect or determine that a significant change has occurred. Small sample size causes low power, but power can be improved by using more powerful statistics, by designing stronger programs, and by following subjects for a longer period of time.

2.04 Drug Abuse Prevention and the Media

Moderator: Susan L. David

Speaker: Thomas E. Backer, Ph.D.

A comparative synthesis of various media campaigns has identified the most significant common principles of success in media campaigns targeting health behavioral changes. The most effective campaigns use multimedia strategies and combine media with community, small group, and individual action options. Formative as well as summative evaluation can contribute to the success of a campaign.

Segmenting the audience and targeting the campaign to reach each audience enhances success. Messages must be clear and simple with specific, concrete objectives. Repetition helps maximize message impact. Positive behavioral change and the perception of current rewards should be emphasized over the avoidance of distant, negative consequences of current behavior.

Celebrities can help draw attention. Embedding messages in an entertainment format helps to sustain attention. Key power figures and groups in mass communications and government should be involved. The timing of a campaign relative to other local and national events and priorities also is important.

Typical patterns of organizational dynamics drive the collaborative relationships among groups designing and implementing media campaigns. The culture and politics of participating organizations play a vigorous role in the outcome of campaigns. Local community groups should be involved early in the developmental process so that they feel they own the campaign. Designers should consider ways that campaign goals can be met at the same time as the legitimate human and organizational needs of those partnered in the campaign.

Speaker: Thomas A. Hedrick, Jr.

The major program elements of the Partnership for a Drug-Free America mirror those of any major marketing campaign: primary strategy, creative production and message development, media solicitation, distribution of materials, and monitoring of media results, followed by a research and evaluation component that provides feedback to modify the primary strategy. The primary strategy uses disciplined

marketing and media communications to denormalize attitudes towards drugs, their use, and their users specifically those attitudes that drive trial and continued use.

The Partnership aims to affect the decisions to try and use drugs by targeting those who make the decisions (consumers) and those who influence the decisions or societal attitudes at large (influencers). Primary message areas for consumers are motivational, correctness of information, and value orientation. Informational and responsibility-inducing messages target the influencers.

No single message can accomplish denormalization across all targets for all drugs. Celebrities are not used because credibility is all-important and because telling teenagers what to do is an ineffective way to change their behavior. Messages should target specific age groups and ethnic audiences, especially when intended for the African and Hispanic American minorities, because of cultural differences that will affect the impact of the messages. References to drugs should be specific.

Message development combines both quantitative—attitudinal research, NIDA's drug data by specific target groups, and a series of audience profiles for each target group—and qualitative information components—reaction to commercials and discussion in focus groups. Because decreased usage is correlated with increased perception of harmfulness, the assessment of physiological, emotional, and social risks will continue to be the primary message thrust in helping kids decide not to use.

Speaker: Gordon Black, Ph.D.

The Partnership Attitude Tracking Study directly relates attitudes to media messages as the instrument of change. Because it is a voluntary effort, the Partnership for a Drug-Free America depends upon the cooperation of local and national media to air the messages. While the national component has provided relatively constant exposure to the Nation's households, the local component has been highly variable, both geographically and over time.

Values based on level of local media exposure were assigned to communities, and various measures of attitudinal change were compared in high-media areas versus low-media areas. High-media areas had an average level of exposure four times that of low-media areas. Antidrug attitudes, willingness to engage in proactive antidrug behaviors, fear of using drugs or the consequences of using drugs, and perceived risk of using drugs all increased by a greater percentage in the high-media areas than in the low-media areas. Level of media exposure also was related to reductions in drug abuse—both actual use and intention to use marijuana or cocaine declined more in the high-media areas than in the low-media areas. Potential alternative explanations, such as differences in demographics, baseline use, or exogenous variables, do not account for the impact observed.

Speaker: Charles Atkin, Ph.D.

Mass media campaigns differ from other forms of persuasion by the distance between the message sender and receiver. Because audience reactions cannot be monitored for instantaneous feedback, both formative and summative evaluation are crucial to mass media campaigns.

Formative evaluation is used to identify target audiences and behaviors and to gather information on intermediate response and resistance, channel consumption, and past message exposure. Use of formative evaluation in the preproduction stage to test concepts helps campaign designers choose the most effective message themes, persuasive arguments, and stylistic devices. Formative evaluation can support the interpersonal channels of communication by informing on how best to influence the influencers and by stimulating the second, more effective one-on-one interaction. Mass media campaigns would benefit from more effective use of standard public relations and more aggressive media advocacy techniques.

The Partnership has used summative evaluation to mobilize support for the campaign. It is difficult to isolate the specific effects of the campaign and to determine its contribution relative to all other influences. Using more sophisticated survey techniques and multivariate analytical models and measuring a greater variety of responses will help identify the relative influence of the advertisements and the conditions under which those effects are operating. The diagnostic utility of summative evaluation is in tracing the process by which the campaign influences audiences. In developing message appeals, campaign designers should augment the creative component with theoretical perspectives and models from the fields of social psychology and mass communications.

2.05 Risk and Protective Factors for Adolescent Drug Use and Abuse

Moderator: Zili Amsel, Sc.D.

Speaker: Judith Brook, Ph.D.

Several studies examined risk factors for adolescent drug use in three areas: personality, peer influences, and family influences. Three models involving these areas were examined: the independent model, the mediational model, and the interdependent model. The independent model posits that risk in any one of the three risk factor areas is by itself sufficient for drug use even if the other two areas are benign. The mediational model postulates that risk factors in family and peer relationships promote the development of personality risk factors personality that lead to drug use. The interdependent model assumes that risk factors in all three areas are necessary for initiation of drug use.

Personality factors, family factors, and peer relations factors were examined. The personality factors observed were tolerance of deviance, low achievement orientation, low work orientation, rebelliousness, and self-deviance including delinquency and interpersonal aggression. A number of family factors were looked at including degree of parent-child attachment, warmth of the relationship, extent of identification with parents, degree of family conflict, and level of parental monitoring and control. Peer relations factors such as warmth of peer relations and peer modeling also were examined. The findings of these studies tend to support the independent model; that is, risk factors in any one of the above-mentioned areas were sufficient to create a risk of drug use. Youths who were at higher drug use stages (e.g., cocaine) had

greater tolerance of deviance, lower achievement orientation, lower work orientation, greater rebelliousness, more depression, and more self-deviance. Nonusers showed the opposite, while those who used tobacco, alcohol, and marijuana showed intermediate characteristics. Similar rankings were seen with family and peer influences. Factors that protected against drug use, even in the presence of risk factors, included having achieved academically, having good family relations, having a conventional sibling, and having a positive, low-conflict school environment.

Speaker: David W. Brook, M.D.

Dr. Judith Brook's presentation has a number of clinical implications. Adolescent drug use and abuse must be considered in light of relations with family and peers who are not substance abusers. Strong attachment and identification with parents and with peers who do not use drugs is a protective factor. In traditional families, parents and their offspring form mutual attachment bonds. This type of family structure helps children to identify with their parents and encourages adolescents to adopt conventional behavior. This in turn fosters the selection of friends who do not abuse drugs.

Direct and indirect psychosocial influences prevent adolescent drug use. Direct effects include nonuse of drugs by peers, adolescent conventionality, and mutual parent-child attachment. Parental personality and children's identification with their parents indirectly affect adolescent drug use. Points of intervention to reduce the risk of drug use include the parents (individual, couple, or group therapy), families (family therapy and support groups), adolescents (individual or group therapy), and peer groups (group psychotherapy, environmental manipulation, peer counseling, and self-help groups). Intervention may occur at a number of different times from childhood to adolescence, although early risk factor identification and intervention are most desirable.

A number of risk factors for drug use have been identified for children and adolescents. Childhood risk factors for eventual drug use include aggression, poor achievement, and poor control of behavior. Early risk factors for adolescents include risk taking, sensation seeking, rebelliousness, unconventionality, depression, delinquency, and lack of goal-directed activity in work or school. The most important aim of intervention is to establish and maintain interacting factors that protect against drug use. These factors include achievement in school and a sense of responsibility; parental affection, identification with parents, and strong attachment to siblings; association with peers who do not use drugs; and a low-conflict, positive school learning environment.

Speaker: James C. Anthony, Ph.D.

A risk factor is a condition that, if modified, alters the incidence of an adverse event or process. A protective factor is a condition that reduces the incidence of an adverse event or process even if risk factors for the event or process are present. The discovery and application of risk and protective factors are exemplified by two classic epidemiological studies: the reduction of cholera incidence by removing handles from community water pumps in London neighborhoods with a high incidence of

cholera; and the reduction of yellow fever incidence by screens and fumigation. In the case of cholera, risk had been associated with the use of water from certain pumps (risk factor). Regarding yellow fever, screening and fumigation had been associated with reduced incidence (protective factors). In both cases the factors were identified before the specific causative agent was known.

Studies at The Johns Hopkins University School of Public Health aimed at reducing drug use follow the same approaches. The subjects are children living in neighborhoods where the risk of drug use is high, and the aim is to identify factors in those environments that are associated with increased risk and factors that protect individuals against those risk factors. Although risk and protective factors are no doubt interactive, the approach is to analyze factors one at a time while controlling the others. Like all epidemiological studies, the goal of this study is to investigate suspected causal relationships and develop knowledge about them that can be applied in prevention.

It has been found that the risk of heavy marijuana use by age 16 or 17 is strongly related to rule-breaking behavior (which is related to aggression) during first grade. The investigators now are testing the effect of interventions to reduce rule-breaking in lower grades on drug use behavior during adolescence. Another study of 8,000 adults 18 to 29 years of age is examining the risk of developing drug problems in relation to the age when drug use was initiated. While the starting age of drug use did not affect the prevalence of drug problems 1 year after drug use initiation, drug problems were more prevalent in the early onset group 7 years after initiation. This indicates the importance of preventing early onset of drug use. For this reason, studies are in progress to determine the effects of altering parental monitoring on age of drug use onset.

Speaker: Charlene Doria-Ortiz

Despite lack of access to health resources, Mexican American families are amazingly healthy and resilient. They cope well despite an unresponsive health care system, which suggests the existence of a wealth of protective factors that merit study. Success in preventing drug use among Mexican Americans depends greatly on the skills and awareness of policymakers in responding to the strengths and resources of Mexican American communities that provide protection against alcohol and drug experimentation. Prevention services for Hispanic populations must recognize their extraordinary diversity. The following four critical factors must be considered in developing prevention programs for Hispanics:

- The history of Hispanic immigration, including country of origin and length of time in the United States;
- Cultural factors of race, language, and religion;
- Socioeconomic status including age distribution, fertility rate, employment, housing, education, and access to health care; and
- Political participation and representation.

The need for sensitivity to Hispanic culture is paramount in designing programs, but is usually absent from Government programs. In contrast, the business community shows much more sensitivity since it sees Mexican Americans as a market. Federal and State drug prevention efforts can do the same in trying to "sell" health. There are a number of barriers to designing appropriate drug prevention programs for Mexican Americans and other Hispanics including lack of funds and lack of knowledge about Hispanic culture in the predominantly white, non-Hispanic academic community. Ignorance of Hispanic culture often leads to an unproductive direct focus on the individual rather than an indirect approach to the individual through the family, which is the primary social unit in Mexican American communities. Aggressive recruitment of Hispanics committed to prevention research and evaluation should be pursued by academic and other institutions.

A model prevention program for Hispanics should have the following characteristics: (1) an available continuum of substance abuse services, including prevention services for alcohol and drug use, treatment, aftercare, and research and evaluation (which are lacking in the southwestern United States); (2) accessibility of services, which also is lacking in the southwestern States because of the large areas to be served; (3) acceptability of services by the community, which is most difficult because it requires that the design of services, as well as research, be compatible with community culture; and (4) accountability of program staff and researchers to the communities being served.

2.06 Prevention for High-Risk Youth

Moderator: Steve Gardner, D.S.W.

Speaker: Jacqueline Butler, M.S.W., L.I.S.W.

African American youth are the group at highest risk of drug use and abuse. Successful intervention and service delivery programs for this group require attention to racial, cultural, and individual factors that shape their world view. Historically, African Americans have been an isolated population left out of the process of defining their own identity, defining what constitutes illness and wellness, and determining what does and does not work in their communities. Many people in the drug prevention field do not understand the reality of African American youth. How do they obtain their knowledge? What are their value systems? How do they reason? How do they interact? How do they get their sense of identity? How do they get a sense of well-being? Although self-esteem is considered important for prevention, how can individuals develop a sense of self-worth when the oppressed group to which they belong lacks a collective sense of self-worth? Answers to these and similar questions are needed by those who wish to design effective intervention programs for these youth.

The failure of African American youth to progress in the conventional sense of the term is itself a major risk factor for drug use and abuse. That failure is directly related to the inability of those who provide services to them to understand their world views, learning styles, problemsolving styles, values, beliefs, symbols, rituals,

customs, and traditions. The structure of service delivery to African American youth needs to be changed by moving away from hierarchical arrangements and toward arrangements where the client functions as cotherapist or cofacilitator. Furthermore, prevention efforts must focus on more than the target group. Changes brought about in the target group are really second-order changes. First-order changes—those in the external micro- and macrolevel systems (e.g., schools, criminal justice system, human services)—also must be made, including redistributing power and reorienting the thinking of those in control to make them aware of the nature and extent of oppression and to eliminate underlying stereotypes and myths. This is a major departure from usual practice in the field, which has traditionally focused on changes in individual youths and their families.

Speaker: Joy Dryfoos

About 7 million young people in the United States between the ages of 8 and 17 are at major risk of problems such as drug use, early and unprotected sexual intercourse, school failure, and delinquency. Of these 7 million, 2.8 million already have been in jail. Children at risk are readily identifiable at a very early age by their lack of basic skills, low achievement, and school failure; by their lack of parental support and nurturing and lack of resistance to peer influences; by their residence in disadvantaged communities; and, as indicated by recent studies, by their proneness to depression and stress.

A systematic examination of programs which addresses the prevention of one or more of these problems identified 100 successful programs that share certain characteristics that appear to account for their success. Characteristics of these programs include the following:

- Provision of one-on-one attention, with organized access to a responsible adult who is consistently available;
- Early intervention;
- An emphasis on acquisition of basic skills through such methods as cooperative learning and team teaching;
- Location of the program in the schools as a community-owned resource but staffed by social workers and other professionals from the broader community;
- Program management and financing handled by entities other than the school system, such as mental health and other community agencies;
- An emphasis on social skills training;
- Engagement of peers in the interventions, for example, as teachers' aides (the main beneficial effects, such as increased self-esteem, occur in the peer aides);

- Outreach to parents, as opposed to invitations to them to participate (which are likely to be ignored by the parents of high-risk children);
- Program links to the world of work, such as summer job placements and encouragement of career goals; and
- An attitude that, while there is no "magic bullet" to solve the problems of high-risk children, incremental changes can be made in their lives by knowing what needs to be done and putting needed program components into packages that are meaningful to communities, schools, and families.

Speaker: Leona Eggert, R.N., Ph.D.

Schools provide a unique opportunity for drug use intervention, since children often spend more time there than at home; schools are often the places where children are first exposed to drugs. A high school-based intervention program was, therefore, developed for 1,000 high-risk youth in two groups, an intervention group and a nonintervention control group, which are then compared with a group of typical low-risk students in other schools.

High-risk students are reliably identified through review of existing school records using the following indicators: record of previously dropping out, reports from teachers, deficiency of earned academic credits, high frequency of absence, a grade point average of 2.3 or less, or a sudden decline in grade point average from a previously satisfactory level. The program's aims are to test the program's ability to decrease suicidal thoughts and behavior, depression, and drug involvement; to improve school performance; and to test the effectiveness of a program based on teacher and peer group support, life skills training, and group work to produce improvement.

The intervention has the form of a regular class and covers two semesters. The first semester focuses on personal growth, bonding to the teacher and the group, and development of social support, with the aim of increasing achievement; improving attendance; and decreasing drug involvement, depression, and suicidality. The second semester concentrates on more extensive bonding, reinforcement of skills, prevention of relapse, and bonding to an activity or a natural network so the participants will continue to have support when the program is completed. Teacher selection is based primarily on motivation to do this kind of work. Teacher training includes initial workshops, weekly observation and support, and biweekly training sessions with program leaders. A major goal of the evaluation component is to determine which elements of the intervention are most effective and why, so that appropriate refinements can be made and disseminated.

2.07 Parent Education Programs

Moderator: Dave Robbins

Speaker: Lee Dogoloff, M.S.W.

As a result of the social unrest surrounding the Vietnam Era, people began to question the authority of the central government. At the same time, parents began to question their basic role and responsibility. Even into the late 1970's, parents were left out of the drug abuse prevention arena, and no drug prevention materials were available for parental education. Today, it is understood that parents are the primary preventers of drug abuse as well as the primary educators and transmitters of values.

Parents understand their children by reflecting on their own personal experiences as children. Adolescent drug and alcohol abuse were not a part of the parents' own experience for the most part—alcohol use began later in high school or early college and crack was not even in their vocabulary. Thus, parents face a different world today. For example, today the average age that alcohol use begins is 12.6 years.

A recent Harris Poll found that the American family is a lot healthier than was thought but with one glaring exception. Parents of 5- and 6-year-old children were concerned about their youngsters' potential drug and alcohol use. They said they did not know what to do since drug and alcohol use was not a part of their childhood or adolescence.

The American Council for Drug Education's video, *Gift for Life: Helping Your Children Grow Up Alcohol Free,* helps parents to be more active participants in prevention by identifying 12 common sense principles.

Speaker: Ura Jean Oyemade, Ph.D.

The major focus of the Minority Scholars Interested in Head Start Research, a group that began a few years ago, was to improve Head Start based on research findings and to enhance the parent component. Development of the Parents and Children Getting a Head Start Against Drugs program targeted prevention efforts in early childhood (children up to age 4). The program was based on the premise that early prevention should be the parents' responsibility because they are the primary educators and the dominant influence in their youngsters' early life. Overall caveats of the program are a developmentally appropriate curriculum, culturally relevant activities, and the need for integration into the regular classroom. The program has a curriculum of 10 modules and includes a trainer manual and parent activity book.

The curriculum focuses on the risk factors surrounding the individual and family that lead to substance abuse. Factors that could reduce risks such as rebelliousness, aggression, resistance to authority, and the inability to express feelings include a commitment to school and education, belief in society's expectations, adherence to norms and values, and a strong, positive self-concept.

Risk factors in the family that lead to substance abuse include loneliness, low self-esteem, frustration, poor communication, and excessive drinking. Factors that tend to inhibit substance abuse in the family include warm positive relationships, commitment to education, attendance at religious services, assignment of household

tasks, high aspirations, strong kinship network, and strong positive values. In addition to imparting knowledge, the program teaches parents techniques for managing stress, identifying resources, developing family support, coping with peer pressure, and identifying values.

Speaker: Karol L. Kumpfer, Ph.D.

The Family Skills Training Program, funded by NIDA in 1983, was developed for parents in drug abuse treatment and their children (age 9 to 12). The prevention program's goals were to decrease substance abuse risk factors and to help develop skills to strengthen relationships. The curriculum contained components from various behavioral training programs available at the time and was slated for non-drug-abusing youngsters. Changes were made when it was realized that some of these youngsters were already using illicit drugs.

Most of the children in the original study exhibited multirisk factors academically, socially, and behaviorally. The study also found stress, chaos, socialization situations, family conflict, and emotional neglect in the children and in the families of the parents in drug abuse treatment. Decreases in family rituals, community and religious involvement, respect for society, and family management skills also were present. Parents exhibited lax or harsh discipline measures, had more family secrets, or abdicated parental responsibility. These parents also had high developmental expectation for their children which created the failure syndrome in their children.

The curriculum, now entitled the "Strengthening Families Program," consists of 14 sessions and is divided into 3 segments: improving family relationships, improving family communication, and developing appropriate discipline measures. This interlocking curriculum consists of training manuals for the child, parent, and family and handbooks for parent and child. Incentives play a major role in getting parents to attend the sessions (e.g., providing transportation, snacks, meals, and child care).

In an OSAP-funded quasi-experimental, research-designed study in Selma, Alabama, with 22 black mothers, the program was found to be equally effective for both alcoholic and drug-abusing groups of women and their children. Internalized, externalized, and environmental scales showed improvements as a result of program attendance.

2.08 Drug Education Curricula—Exemplary Programs

Moderator: Richard Clayton, Ph.D.

Speaker: John Swisher, Ph.D.

Here's Looking At You (HLAY) and its revisions HLAY 2 and HLAY 2000 are exemplary drug prevention school curricula that have been evaluated more than any others. The HLAY curriculum extends from kindergarten through 12th grade and is designed to introduce concepts to children in the earliest grades and repeat them with progressive elaboration in subsequent grades. It incorporates some of the best

learning technology such as cooperative learning. HLAY 2000, the latest version, incorporates examination of risk factors. Some evaluation studies of HLAY have been critical, but most have been generally positive. The curriculum consistently improves knowledge, occasionally improves attitudes about drug use, and occasionally has reduced drug use. A recent study of HLAY 2000 with inner-city, high-risk elementary school students found gains in knowledge and self-esteem and reduced use of gateway drugs.

Another exemplary program is the training provided by the U.S. Department of Education's Northeast Regional Center, which focuses on developing problemsolving and planning skills for school and community teams. The training takes place in several stages, focusing first on school administrators and then on teachers and school principals. This intensive training takes place over several days in a retreat environment. At the conclusion, teams leave with a plan of action for specific programs in their own schools. Followup training and technical assistance for specialized programs also are provided. A recent study has found that in contrast with control schools, which had increased drug use over a 3-year period, drug use declined over the same period in schools that had installed four or more drug prevention programs a year.

Speaker: Ralph Varela, M.S.W.

Proyecto Juventud (Project Youth) is a community-based program in Arizona that provides culturally specific prevention services to seventh and eighth grade Chicano children. Working in conjunction with schools, local agencies, and the community at large, the project focuses on alternative lifestyle activities, mentoring, and imagery concepts. The program is designed to enhance self-affirmation, spiritual strength, family relationships, knowledge of Chicano history and values, and school graduation. Proyecto Juventud seeks to incorporate Chicano life themes into its prevention program and establish alternative lifestyle activities based on carnalismo (brotherhood) and familia (family). The mentoring component is designed to match Chicano professionals and community leaders with Chicano youth to provide positive role modeling based on culturally specific dynamics.

Imagery is used in teaching, with imaginary characters representing important life themes in the Chicano culture. "The Cactus," which bears both thorns and flowers, represents the good and bad in all humans that can be integrated and made harmonious. "The Serpent" represents evil in the community and in the self, but it is a creature with no external genitals and can be killed when the culture and the community unite. "The Three Brothers," Respecto (respect), Dignidad (dignity), and Responsibilidad (responsibility) all work together to destroy the serpent. The term "machismo" embodies respect, dignity, and responsibility and does not have the negative meaning ascribed to it by non-Chicanos.

Since the program does not yet have a research component, it must rely on school reports, self-reports, and family reports. An indicator of its potential is a high graduation rate to the ninth grade. Research is needed to identify the important variables contributing to success, but it must be culturally sensitive research.

Speaker: Calvin Cormack, Ed.D.

Project STAR is a multidimensional prevention program launched in the metropolitan Kansas City area in 1984. The program includes school- and community-based components, both of which encourage parent participation. Strategies include self-management and social competency training; parent and child interactive learning; and community-based leadership development, training, and action planning for social change. The program is used in communities across Kansas and Missouri and has been incorporated into statewide prevention plans by both States. It is being replicated in Indianapolis, Indiana, and a number of communities in Colorado. Its middle-school curriculum is being tested in several Washington, D.C., schools, and its community development component is used in numerous other communities.

The middle-school curriculum is based on theory and is designed to help children critically examine factors that influence the choice to use drugs at a time in their lives when those influences are beginning to affect them. Student- and action-oriented teaching with emphasis on role playing allows children to learn strategies to deal with influences they are likely to encounter. As a result, the students come to a consensus that they do not have to get involved with drugs despite drug use by others. Controlled evaluation studies indicate that students who participate in the program during sixth grade show significantly lower rates of drug use onset 3 and 4 years later.

3.01 NIDA Drug Abuse and AIDS Community Education Programs

Moderator: Avraham Forman, M.P.H., M.S.W.

Speaker: Leona Ferguson

The objectives of the Drug Abuse and AIDS Community Education Technical Assistance Program are to increase awareness in the broader community about the relationship between drug abuse and AIDS and to stimulate development of educational programs for a variety of audiences.

The program has five components: (1) conduct conferences for three ethnic groups, (2) develop and conduct educational seminars for public and private agencies and national organizations, (3) deliver coalition-building and skills-enhancing workshops for AIDS education and substance abuse service providers, (4) provide onsite and offsite technical assistance to support program efforts initiated by a variety of organizations and facilitate the exchange of information between programs conducting drug abuse and AIDS community education initiatives, and (5) form partnerships with national organizations interested in developing and implementing drug abuse and AIDS education programs.

A series of 11 conferences was developed to provide information and networking opportunities to African Americans, Hispanics, and Asian/Pacific Americans. Specific goals and objectives were determined for each target group by representatives of the groups. To date, the conferences, combined with the national organization's liaison efforts and the coalition-building community education workshops,

have educated more than 1,000 persons about the relationship between drug abuse and AIDS through culturally appropriate programs.

Speaker: Richard Sackett

NIDA's Community and Professional Education Branch is working with the Entertainment Industries Council (EIC) to communicate drug abuse and AIDS messages to the general public through various entertainment media. Recent initiatives include a song-writing contest sponsored for western teens and radio spots targeted at specific Native American tribes. NIDA and EIC meet regularly with television, film, and radio producers, writers, and directors to discuss story ideas that provide IV drug abuse and AIDS information.

The goal of the "Stop Shooting Up AIDS" campaign is to show the connection between needle-sharing and HIV infection and to encourage behaviors that will slow or halt the spread of the virus. IV drug users and their sex partners are targeted directly through radio and short print messages, including (1) the AIDS virus is transmitted by needle-sharing and unsafe sex; (2) protect yourself and your partner by using a condom; (3) do not use dirty needles; (4) get tested for HIV before pregnancy, and stay off drugs during pregnancy; and (5) get into treatment.

When the program was adapted for an Hispanic audience, culturally appropriate messages were developed from the original concepts with input from Hispanic advisory groups and an advertising firm specializing in that audience. The issue of the family was found to be critical to the success of the campaign.

Speaker: Avraham Forman, M.P.H., M.S.W.

As a broader followup campaign to "Stop Shooting Up AIDS," "AIDS: Another Way Drugs Can Kill" has the objective of convincing teens that drug use can lead to AIDS in ways they have not considered. The mass media campaign was developed in response to the increase in the heterosexual spread of AIDS and addresses the broader issue of the effects on sexual behavior of any kind of drug use, rather than the route of drug administration. Focus groups revealed that teens are well informed regarding drugs and AIDS as separate topics but do not readily make the connection between them: drugs impair judgement; when you are high, you are less likely to make good decisions regarding risky behavior. Public service advertisements were developed in various media that make intense, direct appeals to the target audience.

Speaker: Lynn J. Cave, M.A.

The campaign is being marketed on a number of levels to receive the broadest exposure possible. Copies of the spots have been distributed to almost 5,000 television and radio stations with teen-oriented formats, and print ads have been submitted to teen magazines. Support from the community at the grassroots level can increase the exposure and impact of the campaign. In an unusual approach, one print ad was adapted into a poster with a teachers' guide and was distributed in a publication targeting educators.

Speaker: Pamela Goodlow

The National Drug Information Treatment and Referral Hotline (1-800-662-HELP) directly supports NIDA's mission to disseminate research-based information to the public and to help those with drug problems seek treatment. The hotline is staffed by trained drug abuse counselors, who determine the nature of a caller's problem and provide individualized counseling and treatment referral.

In its 5 years of existence, the hotline has responded to more than 300,000 calls. Most callers want information about a particular drug problem as it relates to themselves, their families, or significant others. All ages, ethnic groups, and States are represented. Inquiries about cocaine are most frequent, followed in order by alcohol, marijuana, heroin, prescription drugs, and other illicit drugs.

To accommodate the needs of special populations, a Spanish-speaking hotline (1-800-66-AYUDA) and telecommunications devices for the deaf were added to the hotline's services.

3.02 Implementation of AIDS Prevention Community Programs

Moderator: Donald DesJarlais, Ph.D.

Speaker: Annette Greene, M.S.W.

This Allegheny County, Pennsylvania, project is a community-based AIDS prevention project for injection drug users in suburban or non-inner-city areas and their sexual partners. The community-based approach uses knowledge of the social context of the area targeted. Knowledge of community values, norms, and beliefs with respect to drugs, sexual behavior, and HIV is used to gain acceptance by the community as well as by those more at risk. Multiple intervention strategies are offered, and the program is delivered by individuals trusted by the target population. The Allegheny project developed and facilitated social supports and employed culturally and ethnically appropriate strategies for accessing the populations and designing the interventions. The project used both recovering IV drug users and nonusers recognized as natural leaders in the community in order to penetrate the social networks of the targeted group.

Initially, recruiting was done in the largest drug trafficking area of the community. The majority of the population being recruited were African American females; there were few white males. In the treatment population, white males were largest in number, followed by African American males and then females of both ethnic groups. Once the urban recruitment was complete, it was necessary to go to the suburbs. Because suburban injection drug users do not congregate as do inner-city users, indirect means of accessing the population were needed.

Recruiting began with institutions likely to be involved with the targeted group, but the best vehicle for recruiting was a mobile health van staffed by a physician, a nurse practitioner, and a physician's assistant. The van provided medical screening, services focused to women, and referrals to general social service programs as well as medical referrals. This van initially attracted women, who frequently returned with other family members; their sexual partners also began to come in. The study design

does not include multiple followup contacts. Links with existing community-based programs provide followup contacts and assistance.

Speaker: Rafaela Robles, Ph.D.

Caring, concern, fairness, confidence, trust, and social and moral responsibility, as well as competence, are factors vital to positive social and systems relationships. The Puerto Rico AIDS Prevention Program (PRAPP) communicated trust and confidence to the participants by responding to needs and honestly explaining any failures. For example, following up with participants to remind them of appointments was perceived as caring rather than intruding. Simple communication was effective in obtaining cooperation from participants.

PRAPP found that there are no hard-to-reach groups among addicts, but different groups responded to different intervention strategies. In the 1930's professional public health nurses were instrumental in arresting and alleviating numerous communicable diseases on the island. PRAPP has shown that new health personnel can be added to the team, and a new health policy of institutional rather than community services can be employed.

Access to treatment is not a problem in Puerto Rico. Sixty-six percent of the subjects had previously been in treatment. On average, every user had had more than three treatment episodes. Those with prior treatment had been admitted to programs an average of four times. The typical user who had prior treatment was male, between 25 and 34 years old, had less than a high school education, lived with his parents, was on public assistance, had used drugs for 15 years, and used drugs more than five times per day. More than 70 percent had been incarcerated. Those subjects with a treatment history were more likely to test positive for HIV than those without a treatment history.

After exposure to the intervention, it was found that the frequency of injection decreased, as did needle sharing. Cleaning needles with bleach increased, but use of new needles decreased. Multiple services and treatment approaches are necessary.

Implications for AIDS prevention programs are: (1) continue targeting needle users with risky behavior, especially those currently in treatment; (2) note that those with a history of incarceration are more likely to adopt risky behavior; (3) undertake research on initiation of use among youngsters; and (4) continue to study reduction of client's risky behavior.

Speaker: Merrill Singer, Ph.D.

The high rates of AIDS and HIV infection in ethnic minority communities show the need for culturally relevant prevention programs. Recently a typology was developed for differentiating among three levels of discontinuity between individuals and the institutions providing services. Universal discontinuities are those widespread across subgroups in a pluralistic society. Primary discontinuities are those resulting from initial exposure to a new social context. Secondary discontinuities are those for which cultural differences not only exist but are emotionally charged markers of social status and power. It is important to consider all three types and consciously address the different issues.

Different levels of culturally relevant interventions are (1) culturally sensitive—attempting to be socioculturally empathetic; (2) culturally appropriate—incorporating awareness of cultural and linguistic patterns of the target group; and (3) culturally congruent—consciously mobilizing the culture's beliefs, symbols, values, and rules as core elements of the intervention process.

The Community Outreach Prevention Effort Project was designed to test the first two intervention levels against each other, and a followup program will test the third level. The culturally sensitive program was designed by a methadone treatment program. The culturally appropriate design was developed with the assistance of groups from the African American and Hispanic communities. Minimum requirements were set by the project, which the organizations incorporated into the design of the programs. Analysis of data to compare the approaches is still in process.

3.03 AIDS in the Workplace: Systems Interventions

Moderator: Thomas E. Backer, Ph.D.

Speaker: Thomas E. Backer, Ph.D.

AIDS in the workplace systems interventions have developed in response to the need to provide services to HIV-infected and HIV-affected workers. Interventions have moved from a single workplace or community environment to collaborative efforts between the workplace and the entire community, involving employees and entire industries. Recently families of HIV-infected workers have been included in the systems interventions.

During the early 1980's, systems interventions in the Los Angeles entertainment industry grew out of a response to substance abuse in the workplace. In 1986 the impact of the HIV health crisis broadened the intervention to include AIDS. This systems intervention now serves as a model and is being adapted for the New York and Las Vegas entertainment industries.

Comprehensive services are provided, and an extensive resource notebook has been developed for employers in entertainment businesses. Training conferences have been offered in high-incidence cities to small business employers who may not have the resources or the expertise to develop an AIDS intervention for their individual workplaces.

Several characteristics of this systems intervention—volunteerism, visibility, and continuity—have contributed to its success and have potential for transfer and replication. This is a highly visible, all-volunteer effort involving both labor and management. Because an integral part of any systems intervention is to link people with resources, organizers made sure that the public was aware of the existence of this program. It is understood that HIV is not transitory; AIDS in the workplace interventions require long-term commitment and planning rather than reaction to an immediate crisis.

Speaker: Barbara Davis, M.S.W.

The entertainment industry first became involved with AIDS in activities such as fundraising and community education. The Actors Fund was established as a theatrical charity and has grown to a comprehensive national human resources agency. The fund's services include special programs for the elderly, disabled, chemically dependent, and persons with AIDS. In response to the impact of the HIV epidemic within the entertainment industry, Actors Equity and the Actors Fund have collaborated with other groups to raise funds to provide direct financial assistance to members with AIDS.

This collaborative systems intervention has also provided emergency housing for entertainment industry employees with AIDS. New York City efforts were service oriented for the individual with AIDS. Consequently, the Actors Fund began working with the Los Angeles AIDS entertainment intervention focusing on employment issues and practices. The Actors Fund wanted to develop industry-wide policies and programs, and to conduct needs assessments and a review of community resources for the industry. Small educational groups will comprise a regional task force to address the various diverse segments of the entertainment industry.

Speaker: Alan Emery, Ph.D.

The collaboration between the Business Leadership Task Force in San Francisco and the San Francisco AIDS Foundation is an example of a systems intervention involving a service provider (foundation) and large corporations. In 1984 the Business Leadership Task Force acknowledged the impact of the AIDS crisis on the San Francisco business community. Task force members understood that addressing AIDS in a crisis mode was not optimal and developed a cooperative, long-range agenda. The impact on the member corporations was greater than an increased awareness of AIDS in the workplace. Task force member corporations understood that more than social service needs must be addressed for successful AIDS in the workplace systems interventions. For the first time, the corporate community was exposed to the service community in terms of identification of available services and awareness of other foundations.

The New England Corporate Consortium on AIDS Education is another example of a successful AIDS systems intervention. Rather than address each AIDS case anew as it occurred, the nine original members decided to undertake a collaborative effort. Currently the consortium has hundreds of members who share information, meet at annual conferences, and communicate directly for assistance and information.

There is still very little communication between small and large businesses. A group of professional and trade associations of small businesses has developed an AIDS education/prevention intervention model for replication throughout the country.

Industry-wide systems interventions can be developed easily within a community that has an identifiable industry affiliation. However, in many communities, an industry-based intervention may not be applicable, and it may be simpler to develop geographic linkages to promote common interests. If both industry and geographic interventions have been established within one community, it is important to integrate these efforts.

Speaker: Eunice Diaz, M.S., M.P.H.

Currently 26 percent of the total U.S. workforce is Hispanic. Within the next 10 years, women, blacks, and Hispanics will comprise 61 percent of the workforce. The fastest rate of growth will be noted among Hispanic workers, most of whom will be young adults.

The disproportionate rate of HIV infection within the black and Hispanic communities has affected the overall workforce. Although the business community has begun to acknowledge the changes in workforce demographics, very few AIDS education and prevention activities address the Hispanic workforce. The increased influence and involvement of Hispanic workers within large corporations should be utilized to develop new strategies targeting this segment of the workforce. Most of these strategies should be incremental rather than attempt to include all services, policies, and treatment issues.

The strategies should do the following:

- Prioritize awareness that AIDS will have an economic and human impact on Hispanic workers and their families;
- Involve private and public sectors in HIV education as an opportunity to demonstrate successful collaboration in AIDS education;
- Adapt available models to be culturally appropriate for the Hispanic workforce; and
- Work with Hispanic employee groups that are already organized to overcome denial and homophobia bases of fear of AIDS.

Several large corporations have indicated a willingness to make changes necessary to accommodate the needs of the changing demographics of the workforce. The entertainment industry model can be adapted and refined for use within the Hispanic community. The Hispanic workforce can then educate and inform the members of the Hispanic community who are not in the workforce.

3.04 Prevention of HIV Infection and AIDS Among Drug Abusers

Comoderators: Sander Genser, M.D., M.P.H.
William C. Grace, Ph.D.

Speaker: Donald A. Calsyn, Ph.D.

The efficacy of an AIDS education program and optional HIV antibody testing for IV drug users in treatment was assessed in Seattle, Washington. The education program covered the history and epidemiology of AIDS and HIV, a description of the virus and routes of transmission, and the pros and cons of antibody testing. The program used three-tiered risk-reduction strategies for needle-using behaviors and sexual behaviors; needle cleaning and use of condoms were demonstrated, and starter packs of bleach and condoms were handed out.

While the overall objective is to get IV drug users into treatment, there is a recognition that not all will seek treatment. Therefore, in the needle use risk-reduction strategy, subjects were told (1) if you use drugs, do not use IV drugs; (2) if you use IV drugs, do not share your works; and (3) if you share your works, clean them with bleach. In disclosing sexual behavior, subjects were told that celibacy carried the lowest risk, followed by long-term monogamy; subjects also were told to use condoms during unsafe sexual contact.

At 4-month followup no significant differences were observed among groups for knowledge, attitudes, and beliefs about AIDS; drug use and needle use behaviors; or sexual behaviors. Factors that may have influenced these results include the following: (1) the sample was already knowledgeable; (2) the prevalence of needle-sharing is low in Seattle, possibly because needles can be purchased legally in drug stores without a prescription; and (3) the drug abuse treatment itself was associated with reduction in high-risk behaviors.

Resources should be focused on relapsers and those resistant to change. Interventions are needed more than information giving for groups remaining at high risk.

Speaker: Adeline M. Nyamathi, R.N., Ph.D.

The AIDS Nursing Network is a culturally sensitive, educationally appropriate AIDS intervention aimed at changing psychosocial and behavioral risk factors among homeless black or Hispanic women who use drugs, have a history of sexually transmitted diseases, and have a sexual partner who uses IV drugs.

Two treatment programs were tested: in the *traditional* program, black and Hispanic nurses and outreach workers provided information on AIDS and HIV antibody testing; in the *special* program, also included were demonstrations and return demonstrations of risk-reducing strategies and coping enhancement, self-esteem, and control skills. Outcome variables included concerns, self-esteem, support available, coherence, appraisal of threat, coping, distress, depression, knowledge, attitude, acculturation, somatic complaints, and high-risk behaviors.

Both treatment programs showed improvement on all variables from pretest to posttest. Drug-recovering women and those who scored low on acculturation tended to have more difficulties.

It was concluded that short-term interventions providing basic education can have a positive impact on psychological and behavioral variables, regardless of type of program used.

Speaker: Richard C. Stephens, Ph.D.

The effects of interventions of different levels of intensity were investigated in heroin addicts. All subjects received the standard intervention of basic AIDS education, messages about needle cleaning and condom use, and the offer/provision of HIV antibody testing. The intense intervention consisted of four sessions: (1) the same information as in the basic intervention, but provided by an attractive female and using slides; (2) discussions of high-risk behaviors and demonstrations of risk-reducing activities; (3) more indepth discussions of the meaning of sharing needles

and sexuality and viewing one of two films on high-risk behaviors and AIDS; and (4) wrapup consisting of a game to answer questions about what was learned.

Changes in needle- and drug-related and sexually-related risk behaviors were analyzed for three groups of subjects: basic intervention, attendees of one to three intense sessions, and attendees of all four intense sessions. Significant decreases in risk behaviors between pretest and posttest were observed for all three groups of subjects, with the greatest change occurring in high-risk needle behaviors that are most likely to transmit the AIDS virus. Increasing the intensity level of the intervention made no difference.

Those already motivated to change may do so with a minimal level of intervention. Hard-core addicts resistant to change may need a much more intense level or multiple "booster" sessions over a longer term to effect change.

It also was concluded that any treatment program should last at least 1 hour, that special intervention and orientation to the impact of the treatment should be implemented in communities with low exposure to people with AIDS, and that the external validity of research results may be compromised when subjects have been paid to participate in studies.

3.05 Infectious Diseases and HIV Drug Abusers

Moderator: Harry Haverkos, M.D.

Speaker: Peter Selwyn, M.D.

The natural history and development of AIDS and other conditions associated with AIDS, such as HIV infection, tuberculosis (TB), and bacterial infections, were studied in a cohort of 800 IV drug users in New York City.

Between 1984 and 1987, the crude death rate tripled within the patient population. Although cause-specific mortality increased for AIDS, there also was an increase in deaths due to pneumonia among those for whom an AIDS diagnosis had been excluded. There was no increase in bacterial infections or sepsis among seronegative individuals.

A prospective cohort of the same population was studied to determine rates, risk factors, and markers for development of HIV-related diseases over time. Those who were HIV positive were five times more likely than HIV-negative IV drug users to be hospitalized for bacterial pneumonia. The risk for bacterial infection and pneumonia in HIV-positive individuals increased even for those patients not currently using drugs. Immunizations with antipneumococcal polysaccharide vaccine may be moderately effective in producing antibody response for HIV-infected patients.

The same cohort within the methadone treatment program was followed for AIDS, TB, and deaths. The prevalence of latent TB was almost equal for the seropositive and seronegative patients. HIV infection was not a risk factor for acquiring latent TB. However, those HIV-positive patients who had a positive tuberculin skin test had a twentyfold greater risk for active TB compared with HIV-positive patients who had a prior negative test. No HIV-negative patients developed active TB during the study period.

Two-thirds of the IV drug users accepted clinical care within the methadone treatment program, and more than 80 percent continued with therapies for 3 to 6 months.

Speaker: Kenrad Nelson, M.D.

Between February 1988 to March 1989, we enrolled a cohort of IV drug users in a prospective study in Baltimore, Maryland, (the ALIVE study) to define the natural history of HIV and the interaction between HIV infections and other infectious and noninfectious diseases in this population. The prevalence and incidence of several infections, namely TB, hepatitis, and sexually transmitted diseases (STDs), was studied within this cohort of IV drug users. We also evaluated the responses of this population to a number of vaccines and correlated their responses with HIV infection and the degree of consequent immunosuppression. Only about 5 percent of the cohort were in drug treatment at the time of enrollment.

History of illness at baseline was determined. Diabetes was the only disease studied that had a significantly lower prevalence among seropositive than seronegative patients. The almost threefold higher prevalence of diabetes among HIV-seronegative IV drug users was almost certainly due to diabetics having greater access to sterile injection equipement. At baseline, there was a significantly increased rate of syphilis among HIV-seropositive compared with HIV-seronegative patients. Needle-sharing with more than two persons, cocaine use, and IV drug use were associated with a history of syphilis. Genital herpes was more common among seropositive than seronegative IV drug users. Genital warts were more prevalent among both HIV-seropositive homosexual males and HIV-seropositive heterosexual males seropositive than among seronegative patients. A multivariate analysis of drug use, race, age, and sexual orientation indicated a strong association between syphilis and positive HIV seroprevalence, suggesting that syphilis may be a marker or a cofactor for sexual transmission of HIV infection. The association between several STDs and HIV seroprevalence in this cohort of IV drug users suggests that some HIV infections in this population may have been transmitted sexually.

Only 42 percent of the seropositive study population lacked markers (i.e., hepatitis B surface antibody or antigen) at baseline. HIV-positive patients were much less likely than HIV-negative patients to respond to hepatitis B vaccine and were more likely to have markers of hepatitis B infection at baseline. Thus, HIV infection may affect the natural history of hepatitis B in infected persons. Plasma-derived hepatitis B vaccine evoked a better antibody response than the recombinant vaccine in this population, but subjects with HIV infection responded less frequently with protective antibodies. Compared with HIV-negative patients, HIV-positive patients showed significantly poorer antibody response to influenzae, Hemophilus influenzae, and pneumococcal vaccines. Also, the lower baseline levels of antibodies to Hemophilus influenzae B with progressive immunosuppression related to HIV infection suggest that HIV-infected IV drug users may lose antibodies to Hemophilus influenzae B. Therefore, AIDS patients may be at increased risk for Hemophilus influenzae; immunization of HIV-infected individuals with Hemophilus influenzae B vaccine is recommended. Since some vaccines may be less immunogenic and

effective than others for HIV-infected individuals, it may be necessary to develop immunization regimens specific to HIV-infected persons. The cornerstone of care of HIV-infected individuals includes: (1) antiviral chemotherapy, (2) antimicrobial prophylaxis and treatment of treatable opportunistic infections, and (3) vaccines for the prevention of infections for which these patients are at increased risk.

Speaker: Don DesJarlais, Ph.D.

From 1984 to 1986, AIDS behavior, drug use, and death were studied among 610 IV drug users in New York City detoxification and methadone treatment programs. At study entry, there were twice as many deaths among HIV-positive IV drug users as among HIV-negative IV drug users. Most deaths among the study population were attributed to AIDS, although 40 percent did not die from typical opportunistic infections associated with AIDS. Deaths from other causes were distributed equally.

Cofactors that influence the immune system and increase the risk of dying from AIDS were studied. Persons who died from AIDS were compared with seropositive individuals. Alcohol use as a potential cofactor for dying from AIDS. CD4 cell count was the most accurate predictor of dying from AIDS among HIV-positive IV drug users.

Although many of the deaths caused by "wasting" may be linked to positive seroprevalence, deaths associated with significant weight loss among HIV-negative IV drug users also have been noted. Many of the deaths among HIV-positive IV drug users in New York City note AIDS as a cause of death, but the diagnosis may not meet the Centers for Disease Control criteria for AIDS-defined deaths.

3.06 Psychosocial Aspects of AIDS and Drug Abuse Clients

Moderator: John K. Watters, Ph.D.

Speaker: Glen Fischer

The Center for AIDS and Substance Abuse Training was established by NIDA in 1988. The Center has developed a number of courses for specialists in the drug abuse field including a 1½-day course on treatment planning for HIV-infected clients. Three steps are involved in treating HIV-infected clients: (1) assessing the client's needs, (2) working with the client to develop client-centered treatment goals, and (3) assisting the provider to develop specific strategies for meeting these goals. An ongoing feedback process is needed in treating these patients, because their needs change continuously. A four-phase process, similar to that elaborated by Kubler-Ross, is used for treating HIV-infected clients and consists of the initial crisis, the transitional phase, the acceptance phase, and preparation for death.

Speaker: Jack Stein, M.S.W.

The psychosocial impact of HIV can be devastating to the substance abuse treatment client. With the psychosocial issues attendant to early recovery already considerable, HIV disease introduces additional situational distress that requires

adjustment and jeopardizes recovery. This presentation explores numerous psychosocial issues faced by clients through a four-phase assessment model useful for planning treatment and counseling.

During Phases 1 and 2 of the treatment model outlined previously, clients are likely to experience either fear of infecting others or anger. Although anger can be expressed as an urge to infect others, it usually means that the client does not know how to handle these feelings and really is trying to see how the counselor handles them. During Phase 2, emphasis is placed on dealing with feelings of loss through one-to-one counseling, group therapy, and support groups. Possible matters of concern in Phase 2 are relapse to drug use, suicidal tendencies, mental deterioration, and HIV dementia. In Phase 3, which is characterized by acceptance that one has AIDS, it is important for the counselor to anticipate setbacks, make the client aware they may occur, and help the client decide in advance how to deal with them. In Phase 4, the patient should be encouraged to frame his/her own future, thereby developing the patient's sense of empowerment.

3.07 Counseling and Psychotherapeutic Approaches to Issues Related to HIV and AIDS in Drug Abusers

Moderator: Sander Genser, M.D., M.P.H.

Speaker: James W. Dilley, M.D.

Neuropsychological complications of AIDS were recognized early in the AIDS epidemic, but it was not clear whether they resulted from secondary opportunistic infections or were caused by the AIDS virus. By 1985, however, these complications were recognized as the result of HIV itself acting in the central nervous system (CNS).

HIV is carried across the blood-brain barrier by infected monocytes, macrophages, and other white blood cells. The mechanisms of neuropathological changes, which can be seen in 75 to 95 percent of patients with or without cognitive impairment, are not well understood. Among the possibilities are inflammation arising from immune reactions to the virus, damage to infected blood vessel endothelial cells followed by blood vessel leakage and edema, or blockage of neuroleukins by the GP-120 surface protein of HIV. CNS involvement follows very quickly after seroconversion as shown by the ability to culture the virus from cerebrospinal fluid or CNS tissue at that time.

The most common presenting complaint arising from these neuropathological changes in early AIDS is personality change. Other neuropsychiatric signs and symptoms at this stage are poor concentration, slow mental processes, amotivational states, forgetfulness, abnormal reflexes, apathy, social withdrawal, slowed movements, and abnormal gait. Incontinence, vacant staring, and noninvolvement are characteristic of late-stage bed-bound patients. A longitudinal study is underway to describe the natural history of AIDS infection in relation to cognitive impairment; to examine the relationships among a neuropsychiatric battery, psychiatric rating scales, evoked potential responses, and immune function; and to establish predictors of

cognitive impairment in AIDS patients. There is no specific treatment for HIV-related neurological impairment other than supportive care. Although dramatic improvements have been seen in patients taking AZT, controlled studies of this effect are lacking.

Speaker: William C. Grace, Ph.D.

Psychotherapeutic techniques are increasingly being applied to substance abuse counseling and to HIV risk-reduction programs. Empirical evaluations suggest that the techniques are promising, but studies have not well differentiated specific effective therapeutic components applicable to HIV interventions. However, principles drawn from the broad psychotherapy outcome and process literature may be applicable in changing risk behaviors. Development of client-counselor collaboration, mutual respect, and investment in risk reduction should form the foundation for effective interventions. Based on individualized assessment of the client, the counselor should encourage independence and autonomy while guarding against providing excessive advice and direction. Reliance on nonspecific techniques such as support and catharsis should be tempered with specific risk-reduction activities.

A number of features of the psychotherapeutic relationship appear applicable in risk-reduction counseling. These features include the following:

- The need for a warm and trusting relationship between the counselor and the client, as well as an effective therapeutic relationship;
- Issues related to ethnic, racial, or other matching of counselor and client;
- The amount of information clients need about procedures;
- The respective advantages and disadvantages of group and individual counseling;
- Scheduling issues, with an awareness that waiting lists are related to negative outcomes; and
- The usefulness of nondirective approaches that respect clients' ability to make decisions and offer alternatives to clients rather than tell them what to do.

3.08 HIV TESTING IN TREATMENT

Moderator: Elizabeth Steel, M.S.W.

Speaker: Lawrence Friedman, M.D.

Most substance-abusing, white, middle-class adolescents and young adults in treatment compare with the broad-based population in their knowledge, beliefs, and behaviors regarding HIV infection. Adolescent substance abusers are well-educated about the causes of AIDS, methods of transmission for AIDS, and protection against

the virus. A significant number has contact with a primary care physician, but few have discussed AIDS with their doctors. Almost all of those surveyed were sexually active, but only half worried about getting AIDS and used condoms. Similar to the broad-based population, significantly fewer used condoms when they were under the influence of alcohol or were using drugs.

Of those in treatment, most wanted an HIV test, assuming the results were confidential. None of those who had tested previously had been asked how they would react if the test results were positive. When asked, most responded that they would be less likely to remain in treatment; more than half indicated that they would return to alcohol or substance abuse and would be less likely to continue their education or to engage in sexual activities, but would be more likely to use condoms.

Seropositive substance-abusing adolescents are less likely to enter or remain in treatment; they may actually increase their risk-taking behaviors. Although adolescents and adults demonstrate the same behaviors that put them at risk for HIV infection, adolescents process information differently; for them, the dangers of high-risk behaviors must constantly be reinforced. For asymptomatic adolescents, the timing of the HIV test may impact on the success of the substance abuse treatment.

Speaker: David Mactas, M.A.

Within therapeutic and residential treatment communities, most of the resistance to HIV-testing comes from staff. Because many staff members are recovering substance abusers, they view themselves at increased risk for HIV infection and would rather not know about AIDS. Although most clients indicate that they would prefer to be tested for HIV infection, many staff feel unequipped to counsel seropositive clients. Counselors who previously viewed themselves as competent may now consider themselves incompetent to deal with issues such as death and dying or reducing high-risk sexual and other behavior.

The entire treatment agenda of the therapeutic community changes to accommodate HIV-testing issue questions: Is it always better to know the results of the test? Is there an optimum time to test? Should test results be documented? Is there a prescribed protocol for pretesting and posttesting? It is possible that positive HIV test results will cause the client to leave more quickly, thus undermining the capacity of the program to have a successful treatment outcome.

Speaker: Mark W. Parrino, M.P.A.

Methadone programs were developed more than 25 years ago as an inexpensive outpatient treatment for mostly opiate-addicted individuals. In the late 1960's and 1970's methadone treatment patients usually were employed; their health care problems were ailments that were readily treatable: primarily serum hepatitis, endocarditis, and tuberculosis (TB). Staff was competent to do basic counseling.

In the last 5 years the characteristics of the patient population have changed drastically. The current patient population is mostly unemployed; the incidence of TB, alcoholism, diabetes, pulmonary disease, and hypertension has increased significantly, and some patients are presenting with HIV infection. Policies and procedures must be changed to accommodate the changing patient population. Most

methadone treatment programs are not equipped adequately or staffed appropriately to provide primary care or HIV testing and counseling.

After patient characteristics are identified using a morbidity index, appropriate interventions based on patient need and staffing capabilities can be developed. If HIV testing is indicated, it must be implemented by plan. The physical plant must be amenable to ensure confidentiality. Frequent staff turnover cannot accommodate appropriate counseling. HIV testing should not be implemented if the objective is short-term research. In the future, methadone treatment programs will become more comprehensive, with increased medical services available onsite. The issue is not whether to provide HIV testing, but how to provide it appropriately.

3.09 AIDS AND RISK REDUCTION IN DRUG ABUSE TREATMENT SETTINGS

Moderator: Robert Chiarello, M.D.

Speaker: Mark Hochhauser, Ph.D.

The major issues in risk reduction among IV drug users have not always been addressed appropriately. Behavioral change requires more than merely warning people about the risks of their behavior. Many substance abuse clinics may not even have a clear picture of their clients' risk behaviors for AIDS other than IV drug use and sexual partners of the same gender.

Several lessons from drug abuse treatment programs can be applied to AIDS risk reduction: (1) expect modest levels of change; (2) some risk-reduction programs will not work or will not work in the way it was assumed that they would work; (3) it is fairly easy to change knowledge, more difficult to change attitudes, and extremely difficult to document changes in behavior; and (4) scare tactics do not work, especially with adolescents.

Many adolescents take risks as a means of determining who they are, often reflected in drug and sexual experimentation. Because adolescents tend to find fault with authority figures, peer group influence may be a more powerful factor in modeling or altering behavior.

In developing risk-reduction models, it is important to understand that some risk taking is necessary for psychological growth and adulthood. Therefore, the intervention should be designed to show adolescents how to take safer risks rather than eliminate or condemn risk taking.

There are nonsexual reasons for sexual behavior, including peer approval, expression of hostility, escape, and rebellion. An innovative risk-reduction program will determine approaches by which these needs can be expressed in less risky behaviors.

Speaker: Robert Brooner, Ph.D.

The Antisocial Personality Disorder (ASP) is a chronic condition that manifests itself among individuals aged 15 years or older and continues through adulthood. This syndrome is characterized by various interpersonal and social problems, including aggression, dereliction of social responsibilities, and repeated criminal

activity. Of the overall population, approximately 3 percent are diagnosed with ASP, with three times as many men as women exhibiting the syndrome. However, the average prevalence of ASP among IV drug users is 40 percent. ASP is associated with poor treatment compliance and continued high rates of drug use, despite routine drug abuse treatment combined with specialized psychotherapy involving cognitive and interpersonal treatment.

Among IV drug users, no significant differences in prevalence of HIV infection have been noted between ASP and non-ASP patients on the basis of age, education, or ethnic status. Minorities and adult males with ASP are at increased risk for HIV infection compared with minorities and adult females without ASP. Enrollment in treatment programs does not significantly lower the risk of HIV infection among IV drug users with ASP.

The diagnosis of ASP is linked to patients described as chronic risk takers with poor social integration who have multiple sexual and drug-using partners. Many of these behaviors have been associated with increased risk of HIV infection. The implications for treatment remain unclear. ASP is associated with poor treatment performance. Treatment goals may need to be adjusted to accommodate these special patients who may require longer and more intensive treatment regimens.

Speaker: James Sorenson, Ph.D.

The HIV epidemic has led to increased psychological demands on the staff of drug treatment programs. Staff should be provided with regimens that actually work in deterring the spread of AIDS. The Health Belief Model has been used in generating successful approaches to AIDS risk reduction among IV drug users. IV drug users must perceive that AIDS is a threat to their well-being. While AIDS education must personalize that threat for IV drug users, the risk-reduction program must emphasize the benefit of preventive health behaviors. Skills and self-efficacy activities, such as needle-cleaning, condom use, role-playing, and social support, should be incorporated into the treatment program. Although IV drug users enrolled in methadone maintenance programs are more likely to indicate attitude changes regarding risk of HIV infection compared with patients enrolled in a 21-day detoxification program, those attending methadone maintenance are no more likely to change their behavior.

Findings from current research can be applied to developing drug treatment programs; however, clinicians should exercise caution in promoting treatments and preventions that may not be effective for all settings. It is important to understand when it is appropriate to apply research findings and when it is necessary to research other new interventions.

3.10 AIDS Risks in Pregnant Intravenous Drug Users and Their Children

Moderator: Vincent L. Smeriglio, Ph.D.

Speaker: Kenneth C. Rich, Jr., M.D.

The prevalence of HIV infection in pregnant women is very closely associated with substance abuse, either by the women themselves or by their sexual partners. The problem is rapidly increasing in some cities, but in others where the AIDS epidemic has existed longer it is increasing less rapidly. The rate of transmission from infected mother to fetus is now generally believed to be 15 to 30 percent. Cofactors, such as the presence of infectious mononucleosis or sexually transmitted diseases (STDs), may play an important role in determining whether HIV infection will be passed to the fetus.

It is not clear when infection of the baby actually occurs. It has been documented as early as 8 weeks, but it also might occur during delivery through contact with the mother's blood. Although the placenta is generally a good barrier to fetal infection, partial abruption (detachment) of the placenta, which is accompanied by bleeding, can occur in women who use cocaine. Some maternal blood may then enter fetal circulation and cause HIV infection. There also are phagocytic cells on the maternal side of the placenta, such as the Hoffbauer cells, that have the CD-4 receptor for HIV. Their infection could be part of a transmission mechanism.

Diagnosis of HIV infection in newborns is difficult since they usually appear normal. Antibody tests are uncertain since HIV antibodies that are detected may be maternal antibodies. Alternative tests are being explored including measurement of antibodies produced exclusively by the baby, HIV culture, and viral gene amplification techniques. Probably 80 percent of infected infants can be identified by 3 to 5 months of age in hospitals with state-of-the-art laboratories, but such places are not common.

Efforts to reduce the risk of transmitting HIV to the fetus are focused in three areas: behavioral changes in the mother (e.g., discouraging drug use); immunological approaches, such as injecting receptor molecules to bind the virus and keep it from entering its target cells; and administration of AZT to infected mothers during pregnancy and delivery.

Speaker: John P. Johnson, M.D.

A study at the University of Maryland Hospital in Baltimore is examining risk factors for HIV infection in an inner-city obstetric population, prevalence of HIV infection in relation to lifestyle, effects of HIV infection on pregnancy outcome, perinatal HIV-transmission rate, and diagnosis of HIV infection in children. The presence of risk factors for HIV infection was initially determined through self-reports. Drug use was reported by 5 percent of the women. Of these, one-fourth, about 1.5 percent of the total obstetric population, tested positive for HIV. Routine laboratory screening for HIV was then instituted since studies have shown that self-

identification reveals only about one-half of the women who are infected or who have risk factors. The screening is by informed consent to help establish the trust necessary for long-term followup.

The incidence of HIV infection among the IV drug users in the study population is now 25 percent. The women and their infants appear healthy. So far only 2 of 150 HIV-positive women have developed AIDS. However, the mothers do have increased susceptibility to minor infections, and 20 percent of them have STDs, which suggests continued high-risk behavior and high potential for transmitting HIV. Generally the women who transmit HIV to their babies tend to be in their first pregnancy, more likely to have acquired an STD during pregnancy, and more likely to be continuing illicit drug use. It is difficult to see any effects on their infants. However, 40 percent of the infants develop central nervous system problems and other signs of HIV infection by 1 year of age. A number of serious social problems are evident in the seropositive women 6 months after delivery: one-half have housing problems; one-half have moved; two-fifths continue to use drugs; and about one-fourth end up in jail. Social and medical programs must be developed to curb perinatal transmission of HIV.

3.11 A Service Delivery System Model for AIDS Prevention for Women

Moderator: Gloria Weisman, M.A.

Speaker: Judith Cohen, Ph.D.

The AWARE outreach program for women at risk of AIDS started in San Francisco in the early 1980's. Its aim is to bring counseling, HIV testing, medical screening, social support, intervention, and referral services to women at risk in their own communities. The major collaborator on the project is the California Prostitutes' Education Project, a nonprofit, educational offshoot of the prostitutes' rights organization Call Off Your Old Tired Ethics (COYOTE). A van goes into the community to provide services where they are needed. Although the van has no identifying signs, it has become well known to the population it serves and is welcomed and used by them.

The program is producing behavioral changes. There has been only one HIV seroconversion among the program's clients in 5 years. The program expanded into sexually transmitted disease (STD) testing when lack of knowledge about these diseases and high syphilis rates became evident in certain areas.

The van is sometimes used in conjunction with rented motel facilities that include an onsite laboratory for immediate pregnancy and STD testing. Although a major aim of these visits is to recruit subjects for a grant-funded behavioral change program, all participants are eligible for counseling. Those admitted to the study are given lengthy interviews, and blood is drawn for HIV and STD tests. Samples for HIV testing are sent to a central laboratory, but the other tests are done on the premises. Women who are pregnant or have syphilis receive immediate attention, in contrast to regular clinics where clients might wait all day and still not be seen.

Group approaches rather than one-on-one methods are used to change behavior. The groups are run by women who are from the community, have lived like the clients, and often have a past history of drug use; they are thus wise to the ways of the client population and "speak their language."

Speaker: Kattie Portis, M.A.

The establishment of an outreach program for women at risk of HIV infection in Boston was dictated by the reality that this population will not come into the services; rather, services have to go to them. Like the program in San Francisco, the one in Boston also uses an unmarked van to bring counseling and testing services to the women. Before the van was acquired, however, the project founder worked in the Boston area building a network of friends among prostitutes, pimps, bartenders, and proprietors of video parlors. The van goes out nightly from Tuesday through Saturday and is well received by the prostitutes, who are given condoms, tests for STDs, and the freedom to talk about anything.

A related service is a day care center for HIV-positive children, who are housed in a preexisting but renovated day care center. At this time the center cares for 41 children and has a waiting list of 17. Services also are provided to 126 family members of the children, including grandmothers, foster mothers, and siblings. The mothers of many of the children have died or are near death. Another project provides shelter in a refurbished hotel for homeless women and their children.

Staff members of these programs, some of whom are in drug recovery programs, are an ethnically mixed group. They are not professional counselors, but do receive training. The program gives them a sense of empowerment and a feeling of being trusted. They are the ones who bring women into the program.

Speaker: Vivian Brown, Ph.D.

An outreach program in Los Angeles for women at risk of HIV infection is aimed at three groups of women: injection drug users; users of non-injection drugs, most notably crack cocaine; and women who may or may not use drugs but are the sexual partners of injection drug-using men. The approach is different for each of these groups.

The primary outreach strategy for injection drug users is to go out on the street and find them, using teams of women who come from the specific high-risk community. Other outreach methods used include working with methadone maintenance and working with health clinics to encourage entry into drug treatment.

Many women who use non-injection drugs such as crack cocaine believe they are safe from HIV infection because they do not use needles. Conveying the message that all drugs increase the risk of AIDS is very difficult, and sometimes it can take months before these women can accept the fact that they are at risk. Special help is provided to these women, some of whom are not ready to give up crack and enter formal treatment, but may be ready to come off the streets or to make other behavior changes.

It is especially difficult to find the women who are not using drugs, but who are sex partners of drug-using men. Asking the men to introduce their women to

outreach staff is usually futile. Staff members who are themselves recovering from drug problems are especially valuable in locating these women, since they are from the same community and often know such women and their partners from their drug-using days.

An essential element for program success is for the outreach staff to have a network of friends/colleagues in service agencies and drug treatment programs and patterns of informal collaboration with them.

Speaker: Dooley Worth, Ph.D.

An outreach program for women in the South Bronx who are at risk of HIV infection began with the candid admission by staff that the program did not have a lot of funding, but nevertheless would try to help the women as much as possible. Trust was slow in coming, as indicated by the fact that the number of women reporting condom use declined from 48 percent in the fourth month to 28 percent in the ninth month to 0 percent at 1 year, when the clients admitted that they had been lying about condom use because they did not trust the staff. It took 9 months for these women, 60 percent of whom were infected with HIV or had AIDS or AIDS-related complex, to even talk to each other about their own seropositivity.

A number of things have been learned from these women. They are the products of multiple failures of many systems. Many of their parents, especially fathers, were also substance abusers, mostly commonly alcohol or heroin users. Many of their siblings were drug users, usually of heroin. Most of these women (68 percent) had been physically or sexually abused as children, and 75 percent were being abused in their current relationship. This is of particular interest in light of other studies reporting that 40 to 80 percent of chemically dependent women are victims of incest and that the incidence of sexual abuse is 100 percent greater in chemically dependent women. Mechanisms for the strong association between childhood abuse and chemical dependency are not known, but a number of hypothetical models have been advanced.

These women have many serious problems, such as abuse or a pending eviction from their homes, and they are good at prioritizing. Since concern about AIDS risk does not have high priority for them, AIDS counseling per se is not the centerpiece of the program. Although 30 percent are still using cocaine or heroin after 4 years in the program, it is encouraging that these patients keep returning after dropping out, continue working on their problems, and help each other, with staff members serving as facilitators.

3.12 Outreach Programs for Intravenous Drug Users

Moderator: John K. Watters, Ph.D.

Speaker: Clyde B. McCoy, Ph.D.

The city of Miami, like San Francisco, is 1 of more than 60 sites for the National AIDS Demonstration Research Program. This program is aimed at education and risk-reduction training and at the same time maintains cultural sensitivity to drug

abusers. One of the more significant program outcomes has been learning to recruit participants for these studies through social workers, sexually transmitted disease workers, and former addicts who know and respect IV drug users and can work within the community. Hispanic drug users are the most difficult to recruit because IV drug use is not endemic in their communities. While Hispanic communities have a diverse composition, there is a large contingent of Cubans. Complete and accurate data collection is accomplished through use of the AIDS Initial Assessment Instrument. The AIDS Followup Assessment completes the followup stage. Some subjects have been tracked at 6-month intervals for as long as 54 months. Estimates of the percentage of IV drug users who have received treatment varies from 6 to 42 percent.

Enrollees in the urban Miami program were randomly assigned to standard treatment (Centers for Disease Control and NIDA-recommended pretest counseling, HIV testing, posttest counseling, literature distribution, and referral to other agencies for drug treatment) or to enhanced intervention. Evaluation components included both outcome (e.g., patient behavior and participation in drug treatment and AIDS prevention programs) and behavioral change (e.g., numbers of injections, times frequenting shooting galleries, sexual partners, and IV drug-using sexual partners). Followup included retesting seronegative blood as well as some seropositive blood for validation. Early in the process evaluation, the IV drug users rated the educational film used in the first session as very important. Later in the process evaluation, they placed the highest value on the growing relationship with the counselor.

The rural Florida Belle Glade project's drug-using population differed from that of the Miami program. In the Belle Glade project, most of the more than 300 drug users in a 10-block area were tested, with about one-third testing positive for AIDS, most because of heterosexually transmitted disease. IV drug use and the mosquito as a carrier were largely ruled out in this community where sex is offered free to entice people into cocaine parlors. All participants in the Belle Glade project were assigned to the enhanced intervention.

Materials developed for this unique project include the *Miami Intervention Manual* and *Elaine West*, a cultural book that evolved through focus groups with clients. *Elaine West* has a comic book format that shows a female addict learning how to get off heroin and other IV drugs and how to use condoms, i.e., a female affecting male behavioral change. Having already achieved a 27 percent successful treatment placement rate, the Belle Glade project aims to establish a relationship with treatment providers that would permit immediate access to treatment when clients are highly motivated.

Speaker: John K. Watters, Ph.D.

The AIDS epidemic in San Francisco is predominantly among gay and bisexual males. Only 5 percent of the AIDS cases diagnosed during 1989 occurred among heterosexual IV drug users. This is quite different from Northern New Jersey, for example, where more than 60 percent of the AIDS cases occurred in heterosexual IV drug users during the same period. Our studies suggest that HIV-1 seroprevalence

among heterosexual IV drug users rose from 7 percent to 13 percent between early 1986 and early 1987 and has remained at roughly the 14 percent level through early 1990.

One of the first interventions directed toward the problem of HIV infection in IV drug users was the MidCity Consortium to combat AIDS. This coalition of agencies, founded in 1986, provided street outreach and education to IV drug users in a nonjudgmental context. Community Health Outreach Workers (CHOWs) disseminated information on AIDS; distributed condoms and 1-ounce vials of bleach; and made referrals to medical, drug treatment, and social service agencies. During this same period, NIDA funded an AIDS training program for drug treatment program personnel. Additional outreach efforts were brought to bear in San Francisco with NIDA funding an expanded CHOW program in 1988. An underground syringe exchange program was first begun by volunteers in 1988. In addition, the San Francisco AIDS Foundation implemented its "Bleachman" campaign which featured a larger-than-life cartoon "superhero" dressed in costume.

The Urban Health Study is a cross-sectional study of IV drug users in San Francisco. Approximately 600 individuals are interviewed every 6 months in three inner-city neighborhoods: (1) the intersection of the sex and drug trade zones known as the Tenderloin, (2) the predominantly African American neighborhood known as the Western Addition, and (3) the ethnically diverse Mission District which contains San Francisco's Hispanic barrio. We have collected data on more than 3,400 IV drug users over the course of the study. The ethnic breakdown is 35 percent white; 43 percent, African American; 15 percent, Hispanic; and 7 percent, Native American, Asian, Pacific Islander, and other groups. About one-third were female. Sixty-five percent had been in prison or jail in the 5 years prior to interview. Only 15 percent were employed, and most of these worked in part-time and temporary jobs at or below minimum wage. Subjects were active IV drug users and were paid for their participation. Data collection consisted of a structured interview and a blood sample which was tested for the presence of HIV-1 antibodies.

We found significant behavior change between the pre-intervention cohort samples in 1986 and the postintervention samples through 1989. These changes were in the percentage of time condoms were used, in vastly improved needle hygiene, increases in the use of bleach as a disinfectant when needles were shared, and major reductions in both the size of needle-sharing circles and in the practice of needle-sharing. We also found that individuals who used the syringe exchange at least 25 times in the past year were twice as likely to not share needles as those who exchanged less frequently. We found no increase in frequency of injection over the study period. Nor did we find evidence of increased recruitment of younger persons in the practice of injection drug use in the years immediately following the implementation of the outreach/bleach distribution program or the syringe exchange program.

We examined incident cases of hepatitis B diagnosed at San Francisco General Hospital between 1987 and 1989. We found a significant decrease in the proportion of these cases occurring among IV drug users when compared with other risk groups. In addition, we observed no significant increase in HIV seroprevalence among heterosexual IV drug users between early 1987 and late 1989. In our study

population, the HIV-1 seroprevalence remained in the 12 to 15 percent range over this period. The hepatitis B and HIV data tend to corroborate the self-report data on behavior change.

We conclude that community-based outreach and intervention efforts that are nonjudgmental and that provide the means of protection to injection drug users can have a significant impact on improving the overall ecology of risk in the communities where they are implemented. This improvement then may be reflected in attenuated rates of HIV infection in the target population. These data tend to support the hypotheses that such interventions as bleach distribution, outreach, and syringe exchange help reduce AIDS risk behavior, increase knowledge about AIDS risks among IV drug users, and do not stimulate increases in drug use or recruitment into the practice of injecting drugs.

Unfortunately, funding to continue the MidCity Consortium program ran out in December 1990. Syringe exchange is not sanctioned by either the Federal Government or the State of California, thereby providing extraordinary obstacles to the implementation and maintenance of this strategy.

3.13 AIDS OUTREACH—BEHAVIOR CHANGE STRATEGIES

Moderator: Alberto Mata, Ph.D.

Speaker: Pat Evans, Ph.D., M.P.H.

After homosexuals, heterosexual IV drug users are the group most at risk for AIDS in the United States. Most IV drug users fall into the "not-in-treatment" category. Interventions designed for this target population should be evaluated both qualitatively and quantitatively.

Data collected from surveys such as the AIDS Initial Assessment Survey provide important quantitative information about the target population. A qualitative (process) evaluation should identify characteristics of the target population and project staff as well as staffing patterns. Circumstances under which the intervention takes place and effects produced by the program itself are other key components of a treatment intervention evaluation.

A formal process evaluation also may assess program management and organization, outreach intervention, structure of project testing, and counseling as well as other interventions that may involve the target population, community factors, interviewing and tracking methodology, coding, data entry and analysis, and research. However, process evaluation often has an informal, unstructured component that can be crucial to the success of the intervention. Preliminary input from staff can help to define goals and objectives of the project and determine staff expectations. Followup staff interviews may provide an enhanced understanding of the "hidden" subgroups within the target population or information on what actually is occurring in the intervention. In doing so, these interviews have an immediate and dramatic effect on program planning.

Although most government-funded HIV treatment interventions require a formal process evaluation, many community-based organizations engage in the dynamics of process evaluation without recognizing it as such.

Speaker: Robert Freeman, M.A.

To be effective, AIDS counseling interventions targeting IV drug users must ensure a high postfollowup rate as well as attendance at initial testing and treatment. Barriers to attendance at interventions must be identified. Barriers specific to the individual target population, such as accessibility to the counseling site and cultural background of the staff and facilitators, should be overcome.

Also, counseling interventions must accommodate the natural reluctance of IV drug users to engage in group participation. Although a significant percentage of IV drug users acknowledges the need to change high-risk behavior, many also indicate that nothing could motivate them to attend all or part of a series of group sessions. Monetary incentives and supplying basic needs such as groceries, clothing, and child care are effective in attracting the target population to attend initial testing and counseling interventions, but these do not guarantee attendance for the entire series of counseling sessions. The relevance of these factors in promoting increased attendance will vary among target audiences and settings. Extenuating circumstances, such as incarceration, also affect attendance. It is possible that the group counseling model may prove less effective than case management in attracting, retaining, and promoting behavior change among IV drug users.

3.14 Strategies for Coordination of Care

Moderator: Rebecca Ashery, D.S.W.

Speaker: Clyde B. McCoy, Ph.D.

National AIDS Demonstration Research (NADR) Programs are located at more than 60 sites in 45 cities across the United States. All were outreach programs which used indigenous workers to recruit people who were not in drug treatment and educate them about HIV/AIDS and risk-reduction practices. It was important to look at the recruited population members after the educational interventions to see what else could be done to work with them. Posttreatment assessment was not a prime goal of the projects, but it took on importance over time.

The AIDS Prevention/Intervention Program in Miami recruited IV drug users from street settings. Only drug users not in treatment during the past 6 months were recruited. The program was not specifically funded to deal with problems after the outreach intervention, but it used some funds to hire a social worker who made referrals to treatment and coordinated other health and social services for the client. It was important to develop an elaborate followup scheme, collecting as much information as possible at the initial screening so that the individuals could be located later.

Those without a prior treatment history are more likely to engage in high-risk behavior than those who have had treatment. NADR data indicate that 42 percent of

IV drug users recruited nationwide have never been in a formal treatment program. Therefore, there was a tremendous population in need. Initial contact was made, but there was no provision for coordinating care afterward. The outreach programs, however, have the capability to form a handshaking agreement with formal treatment programs. While outreach is extremely important, continuity of care also needs to be addressed.

The Prevention/Intervention Program addressed changing the IV drug users' behaviors, concentrating on direct prevention through emphasis on needle use and needle-sharing and sexual behavior. Drug use cessation also was addressed, but as a way to change behavior related to AIDS. Major changes were found in followups, but more in drug use behavior than in sexual behavior. Booster sessions were developed in order to assist individuals in retaining the changes they had made in behavior.

The Prevention/Intervention Program has been able to work with 23 percent of the clients who requested treatment from the program. Although treatment was not a goal at the start, it was forced on the program by the clients' needs. Program administrators were able to work out case management for HIV positives by referring them to a case management program that was responsible for coordination of care. Twenty-five percent of the project population are HIV positive. Plans are to select at least 300 to see if those referred to case management are doing better than those not referred.

NADR programs have established that there is a need to coordinate the care of very needy clients nationwide. The Prevention/Intervention Program has tried some things that are working well, but more must be done. NADR needs to join forces with the existing large treatment system to build on the foundation of NADR projects and to allow NADR programs to take advantage of what the treatment system has developed.

Speaker: Martin Iguchi, Ph.D.

Newark and Jersey City Health Behavior Projects are AIDS outreach projects with AIDS outreach funding. The University of Medicine and Dentistry of New Jersey's Addiction Research and Treatment Unit is a methadone program receiving NIDA Treatment Demonstration Project funds for clinic operation.

The AIDS outreach projects have Health Research and Services Administration money for client case management. A preliminary screen uses 13 primary items that predict, with 70 percent accuracy, whether individuals recruited will test positive for HIV. The three most important variables for predicting HIV seropositivity are years of IV drug use, frequency of injecting heroin and cocaine together in the past 6 months, and whether cocaine was injected in the past 6 months. Variables predicting nonpositive HIV are crack cocaine use in the past 6 months and noninjection heroin use in the past 6 months.

The client's own assessment of HIV risk is strongly correlated with HIV seropositivity. Other variables include self-reporting of certain health indicators, number of times in jail in the past 5 years, a history of abusing glue or paint, and the presence or absence of sexual partners in the past 6 months. The 13 items are keyed

to the AIDS initial assessment to arrive at a critical risk index score, which may be a positive or a negative number. Persons scoring more than 20 have a risk 40 times that of a person scoring 0. Case management priority is given to those scoring highest on the risk index.

The methadone clinic has more time to assess the clients, to make connections with other services, and to provide a more thorough evaluation. The clinic also provides counseling, training in interpersonal problemsolving, education about AIDS and IV drug use, medical and psychiatric care, and crisis intervention. At AIDS outreach locations, only interpersonal problemsolving skills training is available.

Clients' case management needs are covered in modules, and the clients are asked to prioritize the areas in which they want assistance. Usually, IV drug users choose drug and alcohol abuse as their first priority for attention. The most needy persons are female partners of IV drug users. They place higher priority on finances, food and housing, and health care.

4.01 Research on Drugs in the Workplace: Assessing the Nature and Extent of Drug Use and Its Impact

Moderator: Steven W. Gust, Ph.D.

Speaker: Steven W. Gust, Ph.D.

Research on issues related to drugs and the workplace is one of NIDA's youngest research programs. Starting 3 years ago with a single project, it is now a $5 million-per-year, broadly based research program. The research focuses on the prevalence and impact of drugs in the workplace as well as the development and evaluation of drug-free workplace policies and programs.

Speaker: Beth Grigson Babecki, M.A.

The 1988 National Household Survey on Drug Abuse reported data on the prevalence of illicit drug use in the United States, comparing use by full-time employed persons with the population in general.

Persons employed full- or part-time constitute 70 percent of current users of illicit drugs. Use within the past year by full-time employed persons aged 12 to 17 was 35 percent, compared to 16.8 percent of this age group in the general population. Among those 35 and older, the rate of use is 43 percent higher for those employed than for others. Among those aged 18 to 25 and those 26 to 34, the drug use rate of employed persons is about the same as that of the general population.

Use in the past year was highest among employees in service occupations and in precision, production, craft, and repair occupations. Use was lowest in professional, managerial, and farming occupations. By industry, reported use in the past year was highest in personal service, construction, and entertainment and recreational services; reported use was lowest in finance, insurance, and real estate. Reported use in the past month was highest in the entertainment and recreational services industry and in the construction industry.

Three implications arise from these data. Among working populations, persons aged 18 to 34 are targeted most heavily for drug-abuse reduction because of their higher rates of drug abuse. However, this research shows that the workplace also is an important intervention point for those aged 35 and older because drug use is higher among persons of that age who work as compared to those of that age who do not work. Second, programs should be tailored for precision, crafts, production, repair, and service occupations because of higher rates of use. Third, the highest rates in the personal services, entertainment and recreational services, and construction industries suggest that the way that a business is organized has more of an effect on drug use than an employee's particular job within the industry and so suggests industry-tailored programs.

Speaker: Wayne Lehman, Ph.D.

Cross-industry data on drug use in the workplace can be obtained through household surveys. Within an organization, studies can use analysis of urine test results, Employee Assistance Program (EAP) participation history, or self-report surveys.

One study targeted municipal workers in a large southwestern city. The study objectives were to (1) evaluate perceptions of the extent of the problem in the workforce, (2) estimate worker perceptions of coworker use and attitudes, (3) identify associated work environment and stress factors, (4) determine the impact on performance and behavior, (5) determine employee attitudes and how use by coworkers affects employees, and (6) develop instruments to assess the extent of a problem. Worker participation in the study was voluntary and confidentiality of individuals was assured.

Fourteen percent of 500 urine samples were positive. Ten percent were positive for marijuana, 3 percent for cocaine, 1.6 percent for alcohol, and 1.6 percent for cocaine or opiates. Self-reporting showed that 38 percent used alcohol, 14 percent got drunk on a weekly basis, and 17 percent had an alcohol problem. Twenty-two percent used marijuana and 12 percent used other drugs at some time in their lives. Self-reported use in the year preceding the survey was 7 percent for marijuana and 4 percent for other drugs. Three percent reported use of drugs at work in the past year.

There was no strong relationship between alcohol use and age, although younger workers were more likely to have alcohol-related problems. Marijuana use during their lifetimes was reported at 32 percent by those aged 17 to 25, and at 20 percent by those aged 26 to 70. Use of marijuana in the past year by the younger workers was 17 percent, and 6 percent by the others.

Twenty-eight percent of the workers knew or strongly suspected that a coworker had been drunk or under the influence of alcohol in the past year; 15 percent had exposure to marijuana use in the workplace, and 12 percent had exposure to other drugs. Fifteen percent of the workers were aware of a coworker's giving away or selling drugs at work.

The employees strongly supported the rehabilitation approach over the punitive approach. There was a strong correlation between a worker's perception of coworker drug use and satisfaction with city employment policies.

Drug users exhibit increased absenteeism and accidents as well as more frequent withdrawal behaviors. Among those in high-risk jobs, major predictors of having an accident are use at work and use within the past year. For those in low-risk jobs, these are not significant predictors. Predictors of psychological withdrawal from the workplace are use at work and recent use. Predictors of physical withdrawal from the workplace are use at work and use in the past year.

Speaker: Jacques Normand, Ph.D.

The U.S. Postal Service conducted a 2½-year study to try to determine if preemployment drug testing is related to meaningful performance indicators. The U.S. Postal Service intended to establish a uniform, national preemployment testing program but needed to determine whether there was evidence to support such a program. The study was done because of a lack of information in the available literature.

In this longitudinal study, an applicant with a positive test was not disqualified but was followed if employed. At the 21 sites where the tests were conducted, 9 percent of those hired tested positive. The data were analyzed three times. The first analysis showed a significantly higher rate of firing for those who tested positive. By the third analysis, the rate of firing had risen even more. Absenteeism showed the same pattern. The study also confirms that psychological and physical withdrawal is higher among those testing positive.

Cost-effectiveness analysis projected a savings of $52.7 million for the group hired in the first year of the study over the 10-year average tenure of an employee due to detection of drug users before employment. The projected savings for all persons hired during a 10-year period is more than $270 million.

Speaker: Stephen Heishman, Ph.D.

The aim of basic research is to explain behavioral aspects of drug actions. Laboratory studies can examine the time course of drug effects and can look at the complete profile of a drug. They also can compare effects across drug types and look at drug interactions. From an applied research aspect, laboratory studies can help to develop a quick jobsite screen for drug use to help determine fitness for duty and performance effectiveness. Performance includes things such as physical strength, motor skills, and cognitive skills. One or two skills related to the work setting and responsibilities should be selected for testing.

Drugs affect performance both directly and indirectly. Direct effects include impairment of sensory, motor, or cognitive abilities. Drugs affect performance indirectly; for example, by reducing the motivation to do well, by setting the occasion for inappropriate behavior, or by altering stimuli under which a task was originally learned.

Testing can be done in the laboratory by administering a drug to the subject or by depriving the subject of a drug. Both have profound effects. Most studies deal

with the administration of drugs, but more should be done on deprivation. Studies can be done in the lab, in a field setting, or at the worksite.

Speaker: Bill Luckey, Ph.D.

The purposes of this NIDA-funded study are to find out more about the prevalence of drug use in the workplace, to monitor changes in drug use over time, and to learn more about testing and testing protocols. Data currently are being collected from seven testing labs located around the country. A decision was made to use individual records for each test not summary reports from labs. This provides flexibility but requires efforts to ensure confidentiality of the subjects and to handle the volume of data.

Data on approximately 150,000 tests were submitted to the project for the Third Quarter of 1990. Preemployment testing accounted for 50 percent of the tests; random testing and periodic medical testing were about equal in number, each accounting for approximately 20 percent of the testing; and post-accident, reasonable cause, and return-to-work testing were few.

The overall rate for positive test results was 2.44 percent. Regionally, the West had the highest rate of positive test results, followed by the Northeast, the South, and the North Central region.

Based on the limited information on industry types, manufacturing had the highest rate of positive test results, followed by the transportation industry and the mining industry. Within the transportation industry, the highest rate of positive test results was among maritime workers, followed by motor freight workers; the lowest rate of positive test results was for railroad workers. Within the transportation sector, opiate use was highest among maritime workers, while amphetamine use was highest among motor freight workers. Alcohol use was not included in this study.

Speaker: Barry M. Sweedler

Over a 1-year period, the National Transportation Safety Board studied 182 heavy truck accidents in which the truck driver was fatally injured. Each accident was investigated thoroughly, and the role played by drugs was determined. Tests were conducted for 44 drugs, including alcohol, at cutoffs lower than those in DHHS guidelines.

The two major causation factors were drugs, at 29 percent, and driver fatigue, at 31 percent. Among the drivers found to be fatigued, 33 percent tested positive for drugs.

Marijuana tested positive in 13 percent of the cases, alcohol in 12.5 percent, cocaine in 8.5 percent, over-the-counter stimulants in 8 percent, and amphetamines in 7 percent. Multiple drug use was found in 41 percent of the tests, with three or more drugs in 11 percent of the tests.

Three statistically significant findings of the tests are as follows: (1) a driver testing positive for drug use was likely to have had a suspended license; (2) 82 percent of drivers with a prior history of drug use tested positive in this study; and (3) 19 percent of professional drivers were judged to be in excess of the limits of the

Federal Hours of Service Rules, with 54 percent of these drivers testing positive for drugs.

Speaker: Siegfried Streufert, Ph.D.

This study investigated the effects of sustained blood-alcohol levels on performance of managerial occupations. The study used a number of standard tests but emphasized a validated simulation, testing skills of interest. Subjects received either a placebo or enough alcohol to reach a measured level of 0.05 or 0.10 on a breathalyzer.

Performance on standard tests showed lower accuracy and higher error rates for those subjects at both alcohol levels. The amount of time it took to gain a correct response was constant for those at the 0.05 level and greater for those at the 0.10 level. Visual motor performance dropped for both groups. After receiving alcohol, subjects became more cautious, and risk-taking performance improved for a time but decreased for both groups within an hour.

Action frequency decreased, but specific responses to recent events sped up for those at the 0.05 level. The increased response carries the risk of bad decisionmaking, however.

Performance in terms of diversity of action was of lower quality among those at the 0.10 level; among those at the 0.05 level, some improved and some deteriorated. It seemed that some of the latter group strained to maintain performance. Strategic planning abilities were poorer for both groups. At both blood-alcohol levels, subjects experienced a reduced capacity to plan and use strategies to tie together and perform multiple steps.

High-level strategy planning, using multiple interrelated strategies toward a goal, dropped 40 to 90 percent at both the 0.05 and 0.10 levels; however, not all strategies are lost, and if a person uses those still available, there is no performance loss.

Some subjects improved with alcohol. Those normally having one to five drinks per week showed lower performance with alcohol. Of those normally having 6 to 10 drinks per week, some improved. Those having 11 to 18 drinks per week improved their performance with alcohol, but only to the placebo level of others.

4.02 Research on Drugs in the Workplace: Drug-Free Workplace Programs

Moderator: Jacqueline Morgan, M.P.H.

Speaker: John Erfurt, A.B.

MEGABRUSH technology combines employee assistance and wellness programs. The dimensions related to employee assistance are: (1) a constructive policy focusing on employees' substance abuse problems; (2) expert consultation with supervisors, managers, and union representatives on how to utilize Employee Assistance Program (EAP) policies and procedures; (3) identification of problems through job performance issues; and (4) the use of constructive confrontation to motivate employees.

The basic EAP system includes identification through self-referral or a performance evaluation; referral to EAP, either within the plant or at an outside agency; assessment of underlying problems by EAP staff; and referral to an appropriate treatment program or service. The treatment program diagnoses the problem and prescribes a treatment plan, which is communicated back to EAP through signed release forms. EAP then follows up through treatment, return to work, and the recovery period to prevent relapse.

Companies without professional EAP workers onsite use recovering alcoholics or drug addicts or other nonprofessionals. These paraprofessionals refer the client to a Central Diagnostic and Referral agency where professionals assess the problem and follow up for completion of treatment. They then communicate back to EAP for followup after return to work and during the recovery period to prevent relapse.

The most important program outcome measures from a cost-benefit aspect are days absent, disability claims, and health care claims. Other measures include on-the-job accidents and disciplinary actions. These measures were examined using a ratio of individual performance to average site performance. An individual performing at the level of site average would have a ratio of 1; the ratio would be higher for poorer performance. However, average performance may be unacceptably high, and the data also must be examined.

A study of four different-sized companies examined seven measures of work performance. After the program's first year, the EAP was found to have had a significant impact on all measures. Based on performance ratios, clients at two of the companies showed greater improvement than those at the other companies. It is believed that the latter employees were being reached at an early stage and the program prevented worsening conditions, while the employees at the former companies had more serious problems when reached. Cost savings at the larger companies were significant. There was a small cost increase at the other companies, but over the long term, this may be reversed as the program prevents incurring additional costs.

Another study tracked employees randomly assigned to either a program with regular care but no followup or a program that included followup for a 2-year period. Nearly all participants were assessed as being in the late stages of drug abuse. The success rate was only 50 percent, which was attributed to the company's failure to carry through on program implementation. However, relapses were down 15 percent, substance abuse medical claims were down 31 percent, and substance abuse treatment costs were down 23 percent among those with followup. The study is being replicated at another, more supportive company.

Speaker: Andrea Foote, Ph.D.

The technologies common to employee assistance and wellness programs are: (1) referral for appropriate treatment or assistance, (2) creation and maintenance of linkages between the organization and community resources, (3) expert consultation with worksite systems regarding policies relevant to health and related problems, and (4) ongoing evaluation of employee assistance and wellness programs' use based on work performance and benefit usage.

Wellness programs are structurally similar to EAPs. Wellness programs identify clients through screening and self-referral. EAPs identify clients through performance evaluation and self-referral. Both make referrals for assessment and treatment and provide followup services. Wellness programs are more public than EAPs—participants are known but the nature of their problems remains confidential. Both programs offer a variety of intervention strategies, such as one-to-one guided self-help and self-help minigroups. Organizing a worksite for wellness involves sensitizing corporate people to wellness issues, promoting the program, and developing events and other support systems.

Study data from multiple sites of three large employers analyzed the following five risk areas over a 3-year period: high blood pressure, high cholesterol levels, obesity, cigarette smoking, and lack of exercise. Participation was voluntary. The studies assigned clients to programs with and without followup components. In all areas, followup programs resulted in greater improvement. Of those identified as having risks, 42 percent participated when there was followup and only 15 percent when there was not. With followup, 50 percent of the risks were reduced, while 37 percent were reduced when there was no followup. Cost-benefit analyses were conducted of followup programs for those with high blood pressure for 1978 to 1981 and found that the followup programs produced a savings of $2 to $3 for every $1 invested through reduced health care claims.

Speaker: Helen Axel, M.A.

A 1988 survey of 681 corporate executives looked at drug testing as a management practice, not as a program from the professional level. Senior executives tend to endorse testing, EAP professionals are skeptical, and union representatives see testing as a punitive measure. The benefits of testing are widely assumed, but supporting evidence is not convincing. Most large employers do not see testing as a stand-alone strategy; instead, they integrate it with other measures. Those with testing are more likely to have other methods in place than those without testing. Companies having the greatest experience with substance abuse problems are more likely to embrace testing. Employers without testing programs are generally skeptical of its cost-effectiveness or view it as a negative factor in employee relations. Decisions to test were not made casually. The decisionmaking period ranged from 6 months to 2 years and involved six or more functional areas in the company.

Most companies have uniform policies and procedures, with centralized control and administration. Highly decentralized companies may develop universal guidelines and allow some local-level latitude. Drug testing is not common in small companies. Half of the large companies test applicants, employees, or both, but few do random testing. EAPs and testing programs coexist. The concerns of EAP professionals about being supplanted have not proven true. The programs usually are not linked organizationally.

Legal issues identified relate to onsite and offsite use, random testing, testing thresholds, passive exposure, and lack of definitive legal standards because of evolving case law.

Speakers: Andrea Foote, Ph.D., and John Erfurt, A.B.

Future technologies for employee assistance and wellness programs are being developed. The core technology comes from practitioners and researchers, but new ideas lack both practitioners' reports and research. One future dimension involves using family members in the EAP process: in assessment, recommendation, posttreatment followup, and relapse prevention.

A combination wellness and employee assistance program is being evaluated. EAP staff members who train with wellness personnel report that they feel less stigmatized in the eyes of the employees and are becoming more generalistic. They also indicate that employees are more comfortable going into an EAP office, because the reasons for the visits are not known to others. Another benefit comes from cross-referrals, especially from a wellness counselor to EAP.

Another effort is posttreatment outreach and followup counseling of EAP clients holistically by wellness counselors trained in substance abuse, alcohol abuse, and mental health problems and working together with an EAP person. A wellness counselor is more likely to follow up than an EAP person, because EAP staff concentrates more effort at the front end. Secondly, it is easier to get employees in for followup on medical grounds than for substance abuse reasons. Finally, counselors work under the auspices of EAP, and if there is a relapse, the EAP person can be called in immediately.

EAPs do not deal in primary prevention. It may be possible to look at the degree to which wellness programs can prevent drug and alcohol abuse.

Family members are included in wellness and employee assistance programs. The same services available to the employee are offered to the family members. Effective means of reaching family members are mail, phone, and personal courier, with the employee as the courier between the program and the family.

Wellness and employee assistance programs need separate staff. Important links exist between the programs, such as joint oversight committees, cross-program referrals, followup of EAP clients by wellness counselors, primary prevention by wellness counselors, and interlinking computer software.

Speaker: D. Vincent Biase, Ph.D.

This presentation reviews the first outcome data based on an ambulatory program that primarily focused on urban mass transit workers. The transit authority had developed an EAP but had no treatment capability. Employees were referred to the program from EAP based on positive urine tests or self-referrals. Testing was done as part of an annual physical, when an employee was absent for 3 weeks or longer even if with a doctor's statement, after a direct accident, as part of a prepromotion physical, and if an employee was deemed unfit for duty by a supervisor. The employees were referred to the Employee Counseling Service at Daytop for evaluation and for any indicated treatment program. Those referred to treatment were required to comply with the program; if they did not comply, they would lose their jobs.

The program components included assessment after referral, orientation to the purpose of the program, individual counseling, group interactions, urine testing at a

rate of 40 percent for each client throughout treatment, monthly evaluations to the employee and the employer, monitoring by the employer and Daytop, and followup of performance after return to work.

Those employees directly connected with "rolling stock" or public safety (i.e., operating titles) were 56 percent of the mandatory referrals. Results for those completing the program indicate a 55 percent effectiveness rate, with operating titles being less successful. Psychological changes in five areas among those completing the program were all positive.

Subsequently, the union negotiated for a parallel program to which all volunteers would be assigned, leaving the Daytop-operated program with mandatory referrals only. Analysis of results for 30 randomly selected employees who completed the program and 30 who did not found that 73 percent of "operating titles" completed the program. The analysis found that those completing the program had an early pattern of compliance and those who did not had an early pattern of noncompliance. A pretreatment program is indicated for mandated clients who respond to treatment more poorly than volunteers. The program was effective for crack and cocaine users and even more effective for users of other drugs.

4.03 Establishing Procedures and Policies for Employee Drug Testing

Moderator: Donna M. Bush, Ph.D.

Speaker: Joseph H. Autry, III, M.D.

The Federal Drug Free Workplace Program was created in response to Executive Order No. 12564 and Public Law (P.L.) 100-71. It is designed to deter drug use by Federal employees through education, detection, and treatment. It is a comprehensive program that includes a clear statement of the Federal policy, an educational program aimed at supervisors and employees, an employee assistance program (EAP) and referral for treatment, and drug testing. It also includes provision for self-referral without negative consequences.

In 1987 NIDA issued scientific and technical guidelines for Federal drug testing. DHHS, the Department of Justice, and the Office of Personnel Management have oversight responsibility for implementation of the plan. In 1987 the Inter-agency Coordinating Group (ICG) was established to help agencies develop plans and review them. ICG developed a model plan complying with all Federal personnel regulations, all applicable laws, Executive Order No. 12564, P.L. 100-71, and the mandatory guidelines for testing. By 1988, 42 Tier 1 and Tier 2 agency plans were certified to Congress. Each agency plan includes a policy statement, the action to be anticipated in response to a policy violation and positive drug tests, provision for referral to an EAP, supervisory training and employee education, and self-referral provisions. By 1988, 45 Tier 3 agency plans were submitted for review. At this time, 123 of 135 Federal agencies have certified plans.

Speaker: Stuart C. Bogema, Jr., Ph.D.

Laboratory certification requires successful performance of proficiency tests six times annually and successful performance during laboratory inspection. Inspections are performed by a team of three experienced forensic toxicologists over a 2-day period, each reporting independently.

All aspects of the lab are evaluated in depth. A written and complete manual of standard operating procedures is required and must be followed. A "chain of custody" (COC) form documents (i.e., shows possession of an item from initial acquisition to present time) each step in the process by individual signatures. Procedures for specimen receiving, preparation, and storage are examined. Documentation is reviewed; COC and all other records must be in place, and reports must be completed and signed. All laboratory personnel are evaluated to ensure that they have the experience, education, and training necessary for their position. (Adequate staffing levels also are assessed.) Reagent procedures are reviewed (1) to ensure that they are checked before being used, (2) to identify which reagents were used in any test, and (3) to ensure that they are properly labeled and taken out of service upon expiration.

Strict guidelines apply to quality control and standards. Before a laboratory is inspected, it must perform two rounds of proficiency testing. During the inspection, there is another round of proficiency testing. There are stringent requirements for test reporting, and monthly statistical reports are required. Equipment maintenance is checked. Testing procedures for initial screening are reviewed; the confirmation procedure, documentation, and equipment are examined.

Speaker: Dennis Crouch, M.B.A., B.S.

The function of a Forensic Urine Drug Testing (FUDT) lab is to support Executive Order No. 12564 by providing legally defensible and scientifically valid drug-testing results. In NIDA certified labs, all urine screening is accomplished with FDA-approved immunoassay techniques, and all confirmation is performed by gas chromatography-mass spectrometry (GC/MS). Screening and confirmation must be performed by trained professionals, using well-maintained equipment, and employing scientifically accepted analytical methods under quality control and quality assurance criteria, in a secure lab environment, under COC documentation for the specimens and the aliquot, and with records detailed enough to recreate the testing scenario if litigation ensues.

Laboratory structure follows function. The purpose of a clinical lab is to support the clinician; the purpose of a traditional forensic lab is to investigate deaths, accidents, etc. A major difference among the lab types (FUDT, clinical, and traditional forensic) is in the process flow. For example, clinical labs have many varied departments and process large numbers of specimens, while FUDT labs have one department or a few subdepartments, because NIDA-certified labs are limited to testing for five drug classes in one specimen type—urine.

Instrumentation varies with the type of lab: forensic labs have a variety of equipment, clinical labs have specialized equipment, and FUDT labs are limited to analytical requirements—immunoassay screening and GC/MS confirmation.

The process flow in a clinical lab, if it is associated with emergency treatment, is jumbled with different tests being performed on each specimen received. The process-flow model might follow a batch-flow or machine-driven model, if the clinical lab functions as a reference facility. Forensic labs follow the jumbled process-flow model. FUDT labs follow a batch-flow model, performing five tests on a batch of specimens.

In essence, to be successful, the form and process flow in an organization must follow its function. Successful FUDT labs have incorporated the batch-flow model to specimen processing and testing.

Speaker: Michael Baylor, Ph.D.

In order to be successful, commercial FUDT laboratories must receive and analyze specimens and report results in an efficient, cost-effective manner. These laboratories are, therefore, "uniquely structured" to properly handle high volume daily workload under the stringent forensic and scientific requirements of DHHS and NIDA certification.

Federal regulations have defined the criteria associated with the collection of urine specimens. The operation of the collection site must provide for adequate security, a COC document, and donor privacy; function as a true "limited access area"; and handle all the administrative tasks associated with the collection of forensic specimens.

The COC document is one of the most important components in forensic analysis. The COC document links a person to the final results of the urine test. It attests to and documents the security, integrity, and identification of each specimen from the collection to the reporting of results.

The laboratory must document its accuracy and reliability. The initial testing procedure by immunochemical methodology must show reliable discrimination by sensitivity and specificity. Confirmation testing by GC/MS must render definitive identification and reliable quantitation.

Quality control and quality assurance documentation is essential. Internal quality control must include both "open" quality control specimens (in which at least 10 percent of the specimens are quality control materials placed in specified positions, known to the technicians) and "blind" quality control specimens (in which at least 1 percent of the specimens is quality control material placed randomly in the specimen grouping, unknown to the technicians). The quality control and quality assurance requirements allow the laboratory to document the proper daily function of instruments, procedures, and personnel. Externally quality control testing is "double blind," and 3 percent of the specimens must be tested.

Realistic application of the batch-flow process of operations efficiently meets these forensic requirements. Integrated in the normal, daily operation of a forensic drug-testing laboratory, which reports all results to Medical Review Officers (MROs), is the concept of handling groups of specimens or batches under COC documentation/ transactions for the collection, laboratory receiving/processing, initial testing, confirmation testing, data review, certification of results, and reporting of results.

Speaker: Yale H. Caplan, Ph.D.

Performance testing requires certain materials: standard reference materials, pure drugs clearly identified and used to make up other materials, calibrators for identifying and establishing the parameters of a procedure, controls, and blind specimens.

The general requirements include a specimen of pure urine, either real or simulated. Drugs are added in realistic concentrations, and both the drug and its metabolites are added to ensure a realistic challenge. The prepared sample may include a combination of drugs. Finally, controls, 10 percent in the National Laboratory Certification Program, are included in each batch. There are four types of controls: (1) open controls for which both the content and the location of the sample are known to the analyst, (2) single-blind controls for which content is unknown but location is known to the analyst, (3) single-blind controls for which both content and location are unknown to the analyst but are known to the processor or someone else in the laboratory, and (4) double-blind controls for which neither content nor location is known to anyone in the lab.

Quality control requirements published in the *Federal Register* are 10 percent open control specimens in each batch with concentration at or near the cutoff level and 1 percent blind controls, of which 10 to 30 percent are positive. In addition to testing samples, quality control requires that expectations be set for the results to be obtained and that results be reviewed, discussed, charted, and otherwise documented.

Overall testing of a lab requires three elements: (1) open proficiency testing, (2) blind proficiency testing, and (3) lab inspection. Open testing examines the lab's best performance and emphasizes analytical procedures. Blind testing evaluates the entire operation of the lab on routine specimens. Inspections cover aspects that cannot be covered by proficiency tests.

Speaker: Steven St. Clair, M.D., M.P.H.

Prior to 1985, employee drug testing was essentially unregulated. As testing began to develop, the need for standards became apparent. The MRO function was deemed to be critical. The MRO is intended as an independent check and balance on the system.

The 1988 Department of Transportation and DHHS guidelines required an MRO. Noncovered employers also began to require MROs at this time. The MRO functions may be essential or special, depending on the applicable regulations. For example, the MRO is required by Coast Guard regulations to make return-to-work and fitness-for-duty decisions. The Federal Aviation Administration (FAA) regulations require the decision but permit the MRO to refer the decision to an FAA regional medical examiner. The Federal Highway Administration regulations do not mention the role of the MRO in return-to-work and fitness-for-duty decisions.

The MRO has a complex role in the review of positive tests. The MRO also plays an important role in reviewing negative results. In particular, the MRO helps establish confidentiality for those tested and protects the confidentiality of the system. Quality control is an essential MRO function. Twenty-five to 35 percent of MRO administrative time may be spent on collection site issues.

The MRO acts as any good occupational health practitioner. A good MRO provides protection for individuals and serves as an employee advocate; in fact, the MRO acts as an agent of the employer. The MRO has a responsibility to the public. For example, if review of test results shows a potential safety risk, or if it appears that there may be a breakdown in the integrity of the program, the MRO has a responsibility to take appropriate action. The MRO must possess good clinical and administrative decisionmaking capability.

Speaker: Edward J. Cone, Ph.D.

Urinalysis is used in a variety of clinical settings including treatment, health evaluation, and employment testing. Urinalysis has become the standard diagnostic test for evaluation of drug exposure. However, valid behavioral interpretation of results is sometimes difficult or impossible. Drug characteristics that may limit behavioral interpretation include extensive metabolism and prolonged excretion of inactive metabolites. The time course of excretion of many drugs in urine often extends beyond the period in which the drug exerts its pharmacologic effects. These factors preclude attempts at correlating drug-induced pharmacologic effects with drug concentrations in urine.

Detection methods based on measurement of active drug species would provide a more direct approach to evaluating the relationship of drug levels to behavior. Each biological fluid or tissue should be considered as representing a different type of historical record of drug exposure and excretion. In contrast to urine drug levels, blood and saliva levels represent total and non-protein-bound fractions, respectively, of circulating pharmacologically-active drugs. Exceptions for the saliva level can occur when a drug is administered by the oral, nasal, or inhalation route which leads to substantial contamination of saliva by the drug. Generally, the presence of significant amounts of active drugs in blood or saliva can be interpreted with greater confidence to indicate the potential presence of drug-induced pharmacologic effects.

Hair testing, potentially, represents a long-term historical record of drug exposure extending over months or years; certainly, the detection time extends substantially longer than the original drug effect. Hair testing may be valuable as a qualitative means for assessment of drug exposure over a prolonged period of time. However, much remains to be determined regarding the validity of hair testing; this type of data should be viewed with caution.

Overall, drug testing of different biological fluids and tissues presents different and sometimes unique opportunities to learn about an individual's drug exposure history. Certainly, drug data from blood and saliva will be more directly related to drug-induced effects than similar data from urine and hair. In general, all drug testing data must be interpreted with full consideration of the limitations of the specimen chosen for analysis.

Speaker: Robert V. Blanke, Ph.D.

The past decade saw tremendous change in employee drug testing. There is a growing trend toward a single Federal standard for all employee drug testing.

Testing technology will improve further. Other screening tests may be developed and improved, and screens may detect multiple drugs. Confirmation testing also will continue to improve, with improved GC/MS equipment, new techniques, and new instrumentation. Improved extraction and derivitization procedures will improve recovery while reducing labor-intensive steps. Robotics will be used more extensively, thus reducing human error. Ideally, someone will develop a procedure so specific and so accurate that confirmation tests will not be necessary. Other future developments include alternative specimen testing, onsite testing and onsite testing guidelines, and modification of screening and confirmation thresholds.

There is a caveat. Vendors of existing technology have tried to drive the drug testing program to remain in the past and will continue to do so. These efforts, however, must be resisted.

Speaker: Karen Wagner, J.D.

In the last couple years, three bills have been submitted to regulate drug testing in the private sector—H.R. 33, S. 1903, and H.R. 3940. H.R. 33 requires that all laboratories which perform urine drug testing obtain Federal certification. The more recent version of the Bill requires that the Secretary of DHHS expand the list of drugs and drug classes to include barbiturates listed as Schedules I and II, benzodiazepines, and anabolic steroids. The Bill also requires that DHHS issue criteria for recognition by the Secretary of State agencies or private, nonprofit accrediting bodies to certify laboratories or to act on the Secretary's behalf in certifying laboratories.

Criminal and civil remedies are provided in H.R. 33. For example, no person can perform urine drug testing "unless that person is a laboratory" that is certified. Violators of that provision are subject to criminal penalties. Other actions that may result in civil actions include improper disclosure of urine drug test results, knowingly making a false report, and failure to perform a test in accordance with the regulations.

S. 1903, among other things, requires DHHS to certify laboratories to test for "any...medication that can interfere with employment performance," by analyzing a variety of human substances, such as urine, blood, hair, etc. The certification process includes certifying laboratories which perform initial testing, confirmatory testing, or both. H.R. 3940 is basically the same as S. 1903 with one major difference: the term "employer" includes the Federal Government. This would affect the existing Federal drug-testing program.

4.04 Policy Development Concerns To Achieve a Workplace Free of Drugs

Moderator: Jacqueline Morgan, M.P.H.

Speaker: Jerry Backer, B.A.

Tony's Pizza Service is engaged in the manufacture of frozen food products for the retail trade and for the food service industry and, as a Federal contractor, is subject to the Drug-Free Workplace Act. The company has a high turnover rate, and most of the entry-level employees are young and unskilled.

The company introduced a drug and alcohol abuse policy with the goal of eliminating drug and alcohol abuse from the worksite for the welfare of all employees. The program was presented as a benefit to all workers, and the policy was communicated extensively to the employees.

Line management's responsibility is to produce a quality product at a competitive price in a timely fashion. If there is a workplace performance deficiency, the first line supervisor's responsibility is to identify the existence of the problem, not to identify the cause. The company has contracted with an outside Employee Assistance Program (EAP) provider to provide for both voluntary, confidential participation and company-referred participation. The approach taken in a company referral is that if there is a workplace performance problem for which the cause is unknown, the employee may be asked to participate in an EAP.

The company decided to exceed the requirements of the Drug-Free Workplace Act. Drug testing was implemented in phases, beginning with applicants and proceeding to the company job posting and bidding program. Employees' acceptance of the program was most apparent at the second step, when they recognized the scope of the program. The company implemented a provision providing that any employee convicted of selling, possessing with intent to sell, or soliciting for sale in an offwork setting would be subject to disciplinary action up to and including termination. The aggressive approach is that if the employee is using, assistance will be offered, but if the employee is dealing, termination will result. Statistics show that an employed person who is dealing is likely to deal at the workplace.

Speaker: Thomas Warner

Warner Plumbing is a contractor with 14 locations in the Washington, D.C., area. The company had established a 2-year vocational training program, but it was found that most of the apprentices who entered the program failed to remain with the company. Work-quality problems also were serious among some employees, even though the staff was well trained. To address these problems, the company established a drug-testing program in 1985.

Initially all apprentices were tested after hiring, and 50 to 60 percent failed the test. After 6 months, testing was extended to all new hires and to those employees experiencing an accident, injury, on-the-job incident, or property damage. Of those hired between 1985 and 1987, 50 percent failed the test; at 1 company site, 14 experienced plumbers were hired after interview checks and skills testing, and all failed the drug test. In 1989 only 17 of 123 new hires failed the drug test, and in 1990, 3 of 98 failed it.

A study of accident and injury history before and after institution of drug testing showed the cost of the program in 1989 and 1990 to be less than $12,000 annually, while other costs were reduced $385,000 annually. Seventy-five percent of apprentices complete the program and work for the company, saving $165,000 annually. Employment advertising prior to the drug-testing program was $20,000 annually and now is minimal. Workers' compensation claims between 1982 and 1985 averaged 111 annually, compared to 35 in 1989 and 32 in 1990, resulting in $150,000 in annual insurance cost savings. Between 1986 and 1990, there were 21 percent fewer

vehicle accidents than between 1982 and 1985, with 19 additional company vehicles in use. This results in a $50,000 annual savings. Over the same time period, general liability claims were reduced by one-half. Absenteeism and lateness now are rare.

There is no EAP at the company. The policy is that termination follows a positive drug test. However, three persons fired under this policy were rehired after 1 year and are doing well. There is no random drug testing, except that the three rehired are explicitly subject to it; other random testing is not planned. The policy does not extend to alcohol abuse, but, subjectively, alcohol abuse is considered to have been significantly reduced.

Speaker: Carmen Thorne, Ph.D.

The Washington Metropolitan Transit Authority EAP provides for both voluntary and mandatory referrals and applies to all employees. Testing is required after an incident, and a positive test results in mandatory referral. The employee is given the option of EAP participation in lieu of dismissal. Mandatory time off varies according to the substance detected: alcohol results in 30 days, marijuana in 90 days, and other substances in 180 days. These times are the minimum and can be extended by the medical director. Upon return to work, employees are subject to random testing for 6 months, and a second offense within a 3-year period will result in dismissal.

A joint labor-management committee meets monthly to oversee the policy and the administration of the program. A volunteer or mandatory referral who has been placed in noncompliance by an outside rehabilitation program may be medically disqualified and referred to the committee. The committee may decide to uphold the decision of medical disqualification or give the individual another opportunity for rehabilitation with strict guidelines. A committee such as this is an important part of a program.

Cumulative statistics from 1985 show 1,439 cases: 909 voluntary and 530 mandatory; 319 for alcohol, 556 for other drugs; and 564 for non-drug-related problems. Of the participants, 1,375 have returned to regular duty, 44 are currently in rehabilitation, and 20 are in non-safety-sensitive positions; 264 have been dismissed. In 1990 there were 3,165 drug screens, of which 6 percent were positive.

Speaker: Alan Emery, Ph.D.

Many elements of a drug policy and an AIDS/HIV policy are similar, but it is not useful to deal with them together. Among the similar elements are discrimination; confidentiality and privacy; the stigma of the disease; the need for guidelines for management and for acceptable workplace behavior; legal issues; testing, wherein the danger of treating them together is most serious; safety issues; coworker concerns and responses; costs; communication; policy development; program implementation; moral implications; and minority issues.

To determine the organizational point of view with respect to AIDS/HIV, one must (1) recognize that it exists and treat it as any other life-threatening illness; (2) consider the medical facts about AIDS, and that risk of infection varies with the workplace characteristics; (3) consider legal requirements and determine whether to

meet or exceed them; (4) brief top management and gain support; and (5) review the existing policies, especially return-to-work and other health policies.

There are several ways to develop an AIDS/HIV policy: (1) treat it as any other life-threatening illness and apply the same policies; (2) develop an AIDS-specific approach recognizing that people's responses to AIDS are different from responses to other life-threatening illnesses; and (3) adopt a "no-policy policy" which provides vigorous education programs and written philosophy, procedures, and policies but does not refer to AIDS specifically.

A policy must tell people what to do and when to do it. It must include instructions to line-level management and to the general work staff. Community resources should be considered. Among Fortune 300 organizations, between 10 and 15 percent have HIV policies and procedures. Very few organizations which have fewer than 500 employees have HIV policies and procedures.

5.01 Drug Abuse Treatment for African Americans

Moderator: Beny Primm, M.D.

Speaker: Robert Fullilove, Ed.D.

A bias found in drug abuse treatment research is the degree to which race predicts outcomes. How knowledge of race translates into effective treatment strategies requires a focus on the individual. The American Psychiatric Association now classifies drug abuse as a dependence syndrome, with a focus on behaviors most likely to be exhibited instead of individual characteristics.

The dependence syndrome consists of cycles of initiation and maintenance, frequently including many periods of cessation and relapse. Environmental factors play a critical role in the process. Drug abuse is especially exacerbated by conditions related to poverty: segregation, joblessness, and destruction of the family, the church, and other social and political institutions. Clinical work with clients must be supplemented by efforts to stabilize neighborhoods and maintain the African American community.

Research on women who exchange sex for drugs indicates that they suffer numerous traumas in a continuing dose-response cycle: they dose themselves with the drug to lessen the impact of the trauma. Such women do not respond well to traditional treatments. More success has been achieved by treatment modalities similar to those used for Vietnam veterans who suffer from posttraumatic stress disorders; that is, grouping together those who have suffered similar traumas to share their experiences.

Speaker: Lawrence S. Brown, Jr., M.D., M.P.H.

Evidence that drug abuse treatment can work does not necessarily mean that it is working in the settings in which it is practiced. Numerous disincentives exist both for African American enrollment to treatment and for technology transfer and utilization.

Some problems with drug abuse treatment stem from problems with drug abuse and perceptions of it. Disincentives include (1) the irrational national drug policy regarding the issue of licit versus illicit drugs; (2) the societal stigma associated with drug abuse; (3) the irrational relationship between public health and drug abuse in the dissociation of authority for each; (4) the demand-supply dichotomy and disparate media treatment of the problems versus solutions of drug abuse; (5) inadequate marketing of drug abuse treatment; (6) inadequate reimbursement of public and private drug abuse treatment; (7) inappropriate design of program components targeting specific audiences such as African Americans; (8) inadequate training for drug abuse treatment providers—in particular, health professionals' training should be more extensive and realistic; and (9) inadequate funding for evaluation and treatment research.

Technology transfer must be specific to each clinical setting, and treatment programs must be culturally relevant. Although it is not necessary to be African American to treat African Americans, there must be some sense of identification with the culture. The church is a powerful source of influence and an important community resource.

Treatment researchers and providers must collaborate to establish useful criteria to measure the efficacy of drug abuse treatment.

Speaker: Nsenga Warfield-Coppock, Ph.D.

A rite of passage is a traditional process of ritual that celebrates moving from one stage of life to another. From the Afrocentric perspective, there exists an interplay between the spiritual world populated by the creator, deities, ancestors, the unborn, and the dead and the physical world consisting of people and things.

Five rites of passage are associated with major developmental stages. As the time when a spirit enters the physical world, birth is cause for celebration. Puberty is when the child is becoming an adult, a particularly important time in this context, because this is when we are losing our children. Marriage is seen as the coming together of two families that strengthens both the families and the community in the notion of the extended family. Eldership celebrates the wisdom that comes with age. As the time when the physical person returns to the spiritual world, death is also cause for celebration.

Rites of passage are a programmatic thrust that uses the principles of culture and spirituality to assist in primary prevention and treatment programs by creating a positive environment and support system for a substance-free community. A common complaint is that treatment programs lack the spiritual component. Cultural knowledge helps build the self-esteem necessary to resist drugs in the first place and to resist them after treatment. In addition to promoting a sense of the uniformity of spirituality among people, the programs also focus on sex education; values clarification; household, financial, and organizational skills; leadership assertiveness; and the arts.

Speaker: Kathy Himsl, M.A.

The expansion of the Mainstream Youth Program's adolescent drug treatment programs into African American neighborhood community centers initially failed to attract youth because of an ignorance of cultural rules and norms. After extensive meetings with community leaders, an effort was made to recruit from the community people who cared about youth. The volunteers, many of whom were recovering addicts, were taught the specific clinical skills needed for intervention.

Referral into treatment may be delayed because of myths and misbeliefs. For example, it is commonly believed that gang members are involved only in drug traffic; however, while they may be selling crack rather than using it, many are heavy users of alcohol and marijuana.

There are problems with all three entry points into treatment. Family and friends may be reluctant to refer, because treatment is seen as a white phenomenon and may result in a loss of status. Drug abuse problems commonly are seen by school

officials and employers as behavior problems. The criminal justice system considers drug abuse as a criminal rather than a health problem.

A new program of early service and intervention, which screens every child entering the juvenile justice system to assess and identify the presence of an alcohol or drug problem, has resulted in a lower rate of commitment to the juvenile justice system and has quadrupled the treatment rate for African American youth.

Treatment of African American youth is complex because of the other problems that are often present; most youth are economically deprived and come from single-parent homes. Other successful approaches include mentorship programs, role models, and 12-Step programs that are also used to reduce gang involvement.

5.02 Drug Abuse Treatment for Hispanic Americans

Moderator: Mario De La Rosa, Ph.D.

Speaker: Jose Szapocznik, Ph.D.

Brief Strategic Family Therapy (BSFT) views adolescent drug abuse as part of a larger syndrome of problem behaviors within the family context. Developed from the mainstream of family therapy work, BSFT is particularly appropriate for use with Hispanic families because interaction is basic to the Hispanic culture.

Family members are interdependent and have a pattern of behavior which shapes their behavior over time. How a family interacts is related to the symptoms. If parents are not able to apply contingencies, adolescents display disruptive behavior which impacts on the family, causing more stress. Parents begin to fight with each other and are unable to make rules together to successfully limit the adolescent's behavior. Thus, a vicious cycle continues. Family therapy focuses on breaking this cycle by teaching parents to form a strong alliance, develop clearly defined consequences for clearly defined behavior, and act on their decisions so that the adolescent will fall into line.

In the Hispanic family, the father stands a little apart from the family, and the adolescent tends to become closer to the mother. This results in the child having more power and parents not having a way to close ranks and present a unified front.

In English, we "negotiate" problems; in Spanish, we "handle" problems. A therapist in a Hispanic setting is expected to "handle" or orchestrate treatment to pragmatically create circumstances that make things right for the family.

It is important that therapists understand, accept, and respect how the Hispanic family operates; figuratively move into the family in a leadership position; and engage the family in a working therapeutic alliance. Therapists frequently are disruptive because they do not respect how families operate.

Speaker: Richard Cervantes, Ph.D.

There has not been much research data specific to Hispanic youth in Southern California. A literature search has revealed that (1) 12- to 17-year-old Hispanic males are more likely to have used cocaine compared to other ethnic groups of the same age; (2) in the past 5 to 7 years, illicit drug use among Hispanic youth

increased 4 to 5 percent more than among non-Hispanic youth; and (3) Mexican American children in Southern California showed high inhalant use and were twice as likely to use marijuana as other children.

In California it was found that Mexican American teens abstain from alcohol use until 16 to 17 years of age and then show a marked increase in use. Also found was a high rate of alcohol abuse by Mexican American teenage females—almost as high as that found in U.S.-born Mexican American males.

Mexican American children face multiple risk factors. In California the number of children of color, including Mexican Americans, who live below the poverty level has risen from 12.5 percent in 1969 to almost 24 percent in 1987. Forty percent of the child population in California is Hispanic. The public schools report a 40 to 50 percent dropout rate for Mexican American children by the 11th grade. Thus, the cycle of poverty goes on.

Mexican American children (and families) experience intrapersonal and interpersonal risk factors. The children acculturate much more rapidly than their parents. The children learn American ways at school, then go home to culturally traditional families. Interpersonal factors that place stress on the family include threats to the family unity, for example, a substance abusing parent or spouse.

Mexican American families also experience community risk factors. For example, immigrant parents may have difficulty grappling with employment, discrimination, and community support services.

The Hispanic Family Intervention Program is an 8-week structural group intervention project with high-risk youth and their primary caregiver(s). Preliminary results show that families feel more empowered and better prepared to cope with daily life as a result of participation in the project.

Speaker: Esther Cardavid-Hannon, Ph.D.

Barriers to the treatment of Latino women and adolescents include a lack of research, culturally relevant treatment programs, and bilingual clinicians as well as an erroneous assumption that there is a male figure present in the home.

Clinicians who treat Latino women and adolescents must examine whether their program is relevant to the population they serve and whether it sets up clients for failure. For example, if a Latino woman is in residential treatment, will she lose her job, children, or housing during her absence? A commitment to case management for low-income Hispanic women and adolescents also is necessary as is a willingness to bring in the extended family, an integral aspect of Latino life, during treatment. Finally, clinicians must have a basic knowledge about substance and alcohol abuse and know the differences that exist between Latino male and female substance abusers.

The Comadres Project identifies mature Latino women within the community who serve as "godmothers" or mentors to pregnant and parenting Latino teens. The project supports the mentors and provides them with more information to better implement goals of the project. Mentors use positive reinforcements, such as organizing celebrations, to help teens develop a positive self-image.

Speaker: Catalina Herrerias, Ph.D.

A research study to empirically test guidelines to facilitate more effective, ethnically competent work with Hispanics currently is being conducted at the University of Pennsylvania. The guidelines, identified through a literature search, list 50 items thought to be germane to this population. Although the project is not yet completed, the following information is available.

A total of 650 bilingual and bicultural drug abuse professionals in the tri-State area (Delaware, New Jersey, and Pennsylvania) were initially identified. Of these individuals, 110 were sent a copy of the guidelines and asked to read the statements and add appropriate comments. A total of 62 people, most of whom were Hispanic Americans, responded (45 percent, men; 55 percent, women). Respondents had an average age of 40 years and an average educational level of 17.2 years. Overall, the professionals that responded were very supportive of the project.

Respondents took exception to a few of the items of the guidelines. The item that caused the most difficulty involved the definition of machismo and macho.

5.03 Drug/Alcohol Abuse Treatment for Native Americans

Moderator: Eva Smith, M.D.

Speaker: Jayne T. Goodluck

There are three basic types of Native Americans, and the category into which one belongs may impact acceptance of 12-Step programs. Modern or urbanized Native Americans have little or no trouble grasping program concepts because they have adopted the values and ways of the dominant culture. Contemporary Native Americans, exposed to traditional beliefs in childhood and educated in both worlds, may be confused about their sense of identity, and they need to process information before acceptance occurs. Traditional Native Americans have had little contact with the dominant culture and have difficulty relating to the concepts and philosophy of 12-Step programs. Regardless of which group one belongs in, treatment providers must treat clients with respect, compassion, trust, and encouragement.

Navajo Indians usually enter inpatient treatment programs. During assessment and planning phases, patients frequently discuss feelings of guilt and shame and cultural issues. Debriefing becomes necessary to promote healing within the individual. Culture is very important to Native Americans, and it is important to support and nurture cultural aspects during treatment if interest is indicated.

Manpower shortages in the area negatively impact 12-Step programs. Currently approximately 20 chapters serve anywhere from 200 to 2,000 individuals each. Therefore, it is necessary to apprise people of other community resources that can help in their road to recovery. Native healing methods can play a part in recovery of Native Americans. In the process of helping individuals, they become stronger in heart, mind, body, and being.

Speaker: Herb Mosher, B.A.

Gallup, New Mexico, in McKinley County, has a problem—alcohol abuse in its Native American population. NIAAA's Alcohol Epidemiological County Problem Indicator found that alcohol abuse in McKinley County surpassed that in the 3,106 other counties examined. Gallup police regularly detain approximately 30,000 people annually for intoxication, although many are not arraigned. By comparison, the State of Illinois arraigned approximately 26,000 people for the same offense in 1989.

Gallup is no longer in denial—it is fighting back and looking for solutions to alcohol abuse. Approximately 30 percent of the patients at Rehoboth McKinley Christian Hospital (RMCH) are dually diagnosed; the remainder are diagnosed for alcoholism alone. The inpatient population is 85 percent Native American; the outpatient population is 60 percent Native American and 30 percent Hispanic.

RMCH, which has culturally sensitive programs and many Native American counselors, offers programs and services in several tribal languages. Consultations with medicine men, sweatlodges, talking circles, pow-wows, and other ceremonies are incorporated into programs along with conventional substance abuse treatment methods.

RMCH is fighting for solutions to substance abuse in the area, and measuring program effectiveness has become a key to the solution. The strategies used to measure program effectiveness include the use of modified Hazelden Benchmarks, weekly case reviews, an NIAAA study, a nutrition supplement study, and an innovative strategy based in part on the Public Health Model.

When trying to find solutions, staff should consider the following guidelines or habits: be effective (proactive), begin with the end in mind, put first things first, think win-win, listen and seek first to understand, and sharpen the saw and take care of yourself.

Speaker: Pamela Jumper Thurman, Ph.D.

Research shows that (1) American Indian youngsters use every type of drug and with greater frequency than non-Indian youngsters, (2) the age of first involvement is younger for American Indians, (3) younger American Indian children use inhalants and 10 percent are trying cocaine, and (4) youth who use drugs heavily are not being treated successfully or effectively in programs.

A recent substance abuse study examined socialization variables (family strength, religion, identification, school adjustment and satisfaction, family sanctions about drug use, and peer association). The study found that (1) alcohol and drug abuse among American Indian youth appear to be related to peer drug association, but less so than for Anglo American youth and (2) alcohol and drug use among American Indian youth is linked more directly to family influence than it is among Anglo youth. Thus, there is a direct link between family sanctions and substance abuse, which has implications for prevention and treatment programs for children and youth.

Research findings also indicate that (1) American Indians need creative and effective prevention programs directed toward younger children and youth who are light to moderate users, (2) interdisciplinary treatment must continue to provide

competent and comprehensive care and followup, and (3) careful documentation must occur to keep the knowledge base solid.

The challenge for researchers and providers is to present evidence that a program has a good knowledge base so that it can be used in other communities with similar characteristics. The task of the Tri-Ethnic Center for Prevention is to maintain contact with American Indians and Hispanic communities that have programs, gather information, and offer technical assistance to others.

5.04 Drug Abuse Treatment for Asian Americans

Moderator: Davis Ja, Ph.D.

Speaker: Royal Morales, M.S.W., L.C.S.W.

The Pacific Asian Alcohol Program (PAAP), part of the Special Service for Groups, began with a $10,000 grant from Los Angeles County 11 years ago and now has a $60,000 to $70,000 budget. PAAP targets substance abuse prevention and education awareness in the community. It has developed culturally sensitive media-related curricula translated into various Asian languages and serves as an advocate to the development of the county's master plan for its 29 different Asian ethnic groups. For direction, the program draws on a Community Advisory Board composed of Pacific Asians in the business, health, and social work fields.

Special Service for Groups was awarded a grant from the California State Department of Alcohol and Drug Programs to provide more information about the expanding Asian population, to respond to the needs of this population, and to become more visible. As part of the 3-year study, now in its second year, a needs assessment was conducted of 204 Asian individuals convicted of driving under the influence in 6 to 8 counties. Bilingual interviewers conducted individual interviews using an instrument developed to identify quantity, frequency, and variations of drinking patterns.

The individual interviews were followed by an indepth interview with 13 to 15 Pacific Asians identified as alcohol abusers. A Key Informants Community Focus Group, the third component of the assessment phase, drew from a pool of community experts to discuss drinking-related problems and provide feedback.

Unofficial findings, as of January 1991, include the following: (1) the sample was composed of Koreans, Pacific Islanders, Filipinos, Southeast Asians, and Chinese; (2) 93 percent were male; (3) 87.7 percent were foreign born; (4) the majority had lived in the United States at least 6 to 10 years; (5) 51.7 percent were high school graduates, and 46.8 percent were college graduates; (6) 72.2 percent were employed; and (7) 45.2 percent were employed in blue-collar jobs. Sixty-eight percent of those questioned did not feel they had a drinking problem.

It appears from the study that there is a need to translate culturally appropriate and congruent educational materials, implement outreach strategies in temples and supermarkets, and provide one-to-one counseling to help people who resist participation in self-help groups before easing them into these therapies.

Speaker: Mike Watanabe, M.S.W.

Dramatic changes have occurred in the California population within the past 20 years. In the early 1970's, many of the Asian American drug abusers were third-generation English-speaking Japanese, Chinese, Filipino, and Korean barbiturate, sedative, or heroin abusers. Drugs were not as available as they are today. Fifteen years later, many drug abusers are first generation; 80 percent speak in their native language; and drugs, specifically cocaine, are everywhere.

Drug abuse treatment programs have had to keep pace with these changes. Twenty years ago, treatment settings had larger staffs and greater language capabilities, although there was not a great need for them at the time. Today, programs function with smaller staffs, and the need for bilingual and trilingual staff members is great due to the multiethnic composition of clients. Today, foreign-born Asians resist programs like Alcoholics Anonymous and Narcotics Anonymous. It is difficult for them to stand before a group and admit their failing because of the guilt and shame they feel. As a result of substance abuse denial by public policy sources, community leaders, and families, extensive community education has been necessary for the Asian community to admit that a family member has a drug problem. Although it has taken two to three generations for some families to admit this, the Asian youth took the lead in educating communities and families. With the recent influx of immigrants, this educational process must begin again. One approach taken by the Asian American Drug Program has been to include drug abuse prevention information in its Saturday Scholastic Achievement Test seminars.

Speaker: Davis Ja, Ph.D.

In the early 1980's, professionals recognized that Asian American youth had a drug problem. For example, a study found that 62 percent of Asian youth had tried drugs. It took a number of years for people to accept this because Asians are considered a smaller minority population and often are stereotyped as model people.

The stigma of drug abuse has resulted in a great deal of denial within the Asian American population. Traditionally, the family is the main vehicle of functioning for Asian people, and efforts are made to deny the existence of a serious problem or keep it within the family. Asian values are interdependent within a strict role hierarchy that dictates functions and communication. The father, the hierarchical head of the family, is responsible for holding the family face. The honor of the family name is not only revered in the present generation but extends into past generations. Therefore, clinicians who deal with young people must ally themselves with the father, even if he is the problem, because he serves as gatekeeper to his family.

Treatment must be culturally appropriate so that Asians can freely express themselves, for example, with a significant number of Asian staff and patients in a treatment center. The Asian American Recovery Services' (AARS) "I Can Do It" theater encourages clients to dramatize their story before family and friends. This has been a particularly helpful way for drug abusers to publicly reconcile with their actions and families. It also encourages them to continue with a drug-free life. In addition, AARS focuses on vocational training. Currently the traditional American

approach based on Western concepts is used to treat drug abuse, but Eastern approaches must be examined in the future.

Problems involving drug abuse treatment staff for Asian Americans include a high turnover rate, lack of available Asian staff, and lack of bilingual and trilingual Asian staff.

5.05 Treatment of Gay and Lesbian Drug Abusers

Moderator: Dana Finnegan, Ph.D., C.A.C.

Speaker: Robert J. Kus, R.N., Ph.D.

It is estimated that 20 to 33 percent of this country's gay men abuse alcohol. A number of theories have emerged to explain this high incidence rate. These theories include the Gay Bar Folk Theory, which hypothesizes that because these bars are a place to meet other gay men, some will eventually become alcoholics; the Multi-Factor Theory, which combines the Gay Bar Theory with gay oppression and proposes that this combination leads to alcoholism, but again, this is not substantiated by research; and the Gay Non-Acceptance Theory, which proposes that internalized homophobia (i.e., not accepting one's gay self as a positive thing) combined with genetic predisposition leads to alcoholism.

A University of Iowa study of gay men and alcohol limited participation to gay men who had been sober for at least 1 year. It was thought that gay men after the initial sobriety period had a better perspective of their internalized homophobia (low self-esteem, feelings of guilt, etc.) and were better able to deal with it. Gay men, while they were drinking, used drinking to anesthetize their internalized homophobia.

Therapy strategies included stressing the need for (1) continued sobriety so that clients become aware of their ritualized homophobia, (2) prayer and acceptance from a higher power, (3) bibliotherapy, and (4) the presence of positive gay role models in their lives.

Another study by the author focused on the gay dimension of Alcoholics Anonymous (AA) "working the program." Participants were asked how they complied with the principles of the AA program. Eight types of activities were identified. First, gay men said they were "working the 12-Steps." For example, Step 4 requires taking a moral self-inventory, and internal homophobia was frequently on the list of negatives. Step 5 helped gay men address homophobia in a positive way; the men "admitted to God, to ourselves, and to another human being the exact nature of our wrongs." Second, the men said they were "going to AA meetings," e.g., gay men having internalized homophobia can benefit from attending gay men AA meetings where they can meet other gays who lead high-quality lives. However, attendance at mainstream AA meetings also is advised. Third, participants said they were "applying AA slogans to everyday life," e.g., live and let live. Fourth, the men said they were "sharing self with others," e.g., telling other people that they were gay. Fifth, participants responded that they were "doing everyday tasks as well as one can from morning until night." Sixth, many said they were "participating in non-AA activities," e.g., volunteering at a hospice. Seventh, participants said they "read for

personal and spiritual growth." Eighth, participants received assistance in getting in touch with their higher power.

Speaker: Dana Finnegan, Ph.D., C.A.C.

Dr. Emily McNally conducted research on lesbian recovering alcoholics which resulted in the development of a five-stage description model related to their experiences. Knowing who and what one is—identity—is critical for all people, including lesbians. Identity builds on a sense of internal coherence and a sense of meaningful relatedness to the real world. Study participants had to deal with two shame-based identities: alcoholism and homosexuality. The stigma that society places on both must be addressed. The struggle to transform a negative self-identity into a positive one is tremendous.

The stages of the model that emerged from the study are as follows:

- *Stage 1, Lesbian Recovery Alcoholic Identity.*—Examines past feelings that led up to the present such as when a person began to feel "different" or alienated. The study found that these types of feeling frequently predated the onset of alcohol abuse.

- *Stage 2, Drinking and Identity Process.*—Focuses on why the women drank. Drinking was found to be the primary coping strategy, i.e., to anesthetize their feelings or to feel like they were or were not lesbian. Excessive drinking blocks a person's ability to acquire, develop, and internalize a positive lesbian identity. "Coming out," another factor in identity and sobriety, is a complex process of owning oneself as a lesbian. It requires planning, evaluating, and coping with consequences in a measured and constructive way.

- *Stage 3, Recovering Alcoholic.*—Requires that a lesbian feel "safe" while in the recovery process. Many felt they first had to save their lives before they could deal with their lesbian identity. Mainstream AA meetings usually are advisable in these instances because lesbian/gay AA meetings may be too disturbing at this juncture.

- *Stage 4, Lesbian Recovering Alcoholic Identity.*—Fosters the cognitive-affective skills necessary for developing a coherent sense of identity. Sobriety, which lets lesbians move forward in their lives, also may involve "coming out" on a larger scale.

- *Stage 5, On-Going Management.*—Lets lesbians internalize both identities. Lesbians in this stage are likely to face a number of issues, including "coming out" repeatedly in different situations.

5.06 Drug Abuse Treatment in Correctional Settings

Moderator: David Nurco, D.S.W.

Speaker: Jerome Gallagher, Ph.D.

The Correctional Assessment and Treatment Services program in Ingham County, Michigan, is a jail-based program funded by a mental health agency. The philosophy is behavioral in approach and demands accountability from all who are involved—clients, program staff, probation agents, judges, corrections staff, and any treatment agencies contacted. To be admitted to the program, the client must be in jail. Applicants are screened for eligibility, and a small percentage is rejected. The program's staff is involved at the presentence investigation stage, and the conditions of program participation are spelled out in the sentence judgment.

The program deals with coping skills and peer relationships. The need for peer cohesion is much stronger among addicts than among others. The program is eclectic, has more counseling than psychotherapy, and is highly structured. Participants average 8 months in jail and 13 months in aftercare during probation. Urine tests are required, 3 weekly in the early months, decreasing over time for a total of 96 tests per year. A positive urine test results in jail time, with increasing jail time for repeat positives. Certainty of consequences is more important than severity. The probation order is specific as to what is a violation. Program staff works closely with judges and probation officers to ensure that a violation results in consequences.

In 1986, 16 percent of the urine tests were positive; 6.5 percent of the participants returned to treatment and were clean for 2 years. On average, 12 to 14 percent of the participants test positive and abscond. Two years after completing the program, 90 percent do not get rearrested.

Speaker: David Nurco, D.S.W.

Close monitoring of drug use through urine testing coupled with sanctions can be effective in deterring drug use and reducing crime. Unless results are acted on quickly, the deterrent effect is lost. The program must incorporate a reinforcement component to be effective in shaping behavior. Positive tests and absences are linked to more intense testing, changes in treatment, court appearances, or incarceration. Negative tests are linked to less intensive testing or dropping of testing. A varying test schedule is important. Invasion of privacy is not a major concern because, as convicted offenders, some rights are curtailed.

This parolee demonstration project in Baltimore, Maryland, combines counseling, advocacy, and case management with intense urine testing. Two control groups have been incorporated: one receives the same intense monitoring as the treatment group, and the other undergoes routine parole supervision with random testing. The best comparisons will be between the treatment group and the first control group, because the effects of components other than intensive testing can be isolated.

When treatment participation is a condition of probation or parole, issues of compliance and confidentiality must be addressed. Compliance of parolees with a

testing program more extensive than routine parole is a major concern. However, most will cooperate if they perceive a benefit to themselves. The study emphasizes the confidential nature of research data to address concerns of increased likelihood of detection resulting in disclosure to probation officers and sanctions. Participants are advised to discuss sensitive material with the counselor and not in group sessions to protect confidentiality.

Speaker: Bruce Wald

The Key Program, which arose through Project Reform, is a therapeutic community model based in the corrections system. An isolated treatment unit is provided to establish psychological and physical safety. There is immediate discharge for drug possession. The program is highly structured because addicts have no structure in their lives. The program requires that every participant work on various assigned duties to the best of their abilities. Failure to perform assigned duties results in pressure to either cooperate or get out.

The Key Program uses various dynamics, including one modeled on the confessional (auricular), one using confrontational groups (pin ball), and another trying to develop self-esteem and identify reasons for various symptoms (baseball and basketball).

Of 28 persons who were in the Key Program who were released from prison, 25 have not been rearrested after 2 years.

Speaker: David Wilson, M.Ed.

This program provides outpatient psychotherapy on a fee-per-session basis to clients in a probation setting. Findings from psychotherapy for substance abuse are that a treatment period of 1 year or longer results in significant decreases in substance abuse and criminality and a significant increase in employment. However, antisocial personalities do worse on all measures both before and after treatment.

Most probation officers prefer to be therapeutic rather than act in a policing function. However, this creates problems for clients, because probation officers are required to act if they are told about parole violations. If the officers overlook violations, the clients have an advantage. The probation officers' job is to ensure reporting, urine testing, and that the probationers attend the therapy program. The therapists' job is to provide the therapy. Communication between probation and therapy is critical and should be primarily from probation to therapy, with little going back from therapy. Clients are matched to a particular therapy by the program with input from the probation officer, based on psychological and psychiatric diagnosis and probation records.

Conflicts can arise when probation officers try to direct what the clients discuss in therapy sessions. Conflicts also can arise over treatment length. Probation officers try to establish a highly structured program, but the clients lead extremely disorganized lives. Also, clients want to be in therapy for the shortest possible time. Most clients have difficulty in therapy for the first 30 to 90 days. Those who stay after that period improve.

The decision to terminate a treatment program is often an impromptu one made by the probation officer. With abrupt termination, relapse is highly likely. Even reducing the frequency of sessions is a major step that often leads to a relapse.

5.07 Special Services for Women in Treatment

Moderator: Loretta Finnegan, M.D.

Speaker: Marsha Rosenbaum, Ph.D.

Twenty years ago women in treatment were viewed as peripheral or a subsample of the overall population of IV drug users. Treatment research on female addicts focused on mothers and the addicted fetus and baby. Feminism brought about concern for the female addicts themselves, and researchers pointed out that women's roles as heroin addicts mirrored their roles in society.

Methadone treatment programs for female addicts should be viewed as a bridge back to conventional lifestyles. No treatment modality, including methadone, can do more than stabilize. Prior socioeconomic problems play a major role in future drug use. However, no treatment can remedy poverty; inadequate education, jobs, and housing; lack of health care; and teenage pregnancy—common bases for drug-using behaviors. Treatment programs should accommodate the relapse and destabilization that the female addict and her children will face when she leaves the security of the treatment milieu.

The current societal attitude towards the "underclass" of drug users, emphasizing punishment and incarceration, is especially true for female addicts. If female addicts are convicted as child abusers, these women will avoid seeking treatment for fear of being referred to criminal justice authorities.

Although they are always receptive to new research, treatment providers often are unable to implement these findings due to a lack of funds. Providers and researchers must harness the current public concern about drugs to exert political pressure to ensure that treatment services continue to be provided and supplemented.

Speaker: Beth Glover Reed, Ph.D.

As early as 1974 the special needs of female addicts in treatment were clear; those needs have not changed. Although there are well-documented models on how best to provide treatment to women, evaluation of those models is lacking. More importantly, providers and researchers are not trained politically and bureaucratically to ensure that those treatment services are sustained.

Early treatment programs focused on training and knowledge to deal with women's needs and attitudes. However, very few women were involved as trainers or as treatment staff. Gender issues are being raised in current programs, but sexual harassment is still a problem for female staff as well as female clients.

In the 1970's addiction theories and models were based on studying male IV drug users. Little consideration was given to the differences in lifestyle between male and female addicts. Thus, prevention theories and treatment models paid little attention to the female addict's culture. Service delivery for women must be

reconceptualized. Most treatment funding currently is dedicated to transition. However, there are several posttransition stages that are critical to recovery. New technologies are needed to design treatments to deal with these recovery stages.

The women's community needs to be mobilized at the local level to address alcohol and drug abuse issues that are pertinent to women. Providers of treatment services for women also must implement ways to promote social change, sustain coalitions, and initiate political change.

Speaker: Terry Hagan, M.S.W.

Trauma experienced by addicts in their everyday lives is similar to the psychological trauma experienced by soldiers during war. Thus, addiction and behavioral patterns relative to abuse are normal reactions to abnormal situations. Traditionally "normal" emotions are medicated and negated. Most female addicts have been sexually abused before age 16 and come from alcoholic families. This socioeconomic and environmental pattern has become more pronounced during the last 20 years. Treatment should attempt to validate the coping skills that the addict has developed to survive within this environment and assist the addict in manipulating that environment before psychological trauma can be addressed successfully. The addict should be assisted in discarding those behaviors that are most harmful.

Programs treating women also should provide a safe physical environment; clothing, food, and other basic necessities such as showers and laundry facilities; child care; and psychotropic medications and methadone, if needed. "Cottage industries" should be encouraged so that female addicts can develop skills to support themselves and their children. Treatment providers should not expect immediate transition. It may take 5 to 10 years to modify behavior depending on the individual addict's level of psychological and emotional development.

Because many addicts cannot cope with the degree of change necessary to adapt to the structured environment of residential treatment facilities, it may be necessary to modify the treatment approach to accommodate the psychological trauma associated with past life experiences.

Speaker: Kathleen West, M.P.H.

Many female addicts are not ready for the intensity of some treatment programs; a more successful approach may be to implement a continuum of family focused care. These programs are most successful if the level of care coincides with the client's needs at that time. The high rate of recidivism in most treatment programs may be due to a structure that cannot accommodate the varying levels of need among female addicts.

A continuum-based program may incorporate some or all of the following components: (1) intake, outreach, and referral for new mothers of drug-exposed infants; (2) outreach and referral for children of female addicts; (3) public support, including home visits and group counseling; (4) short-term crisis intervention; (5) family day treatment; and (6) intense, early intervention with children of female addicts. This approach allows for loosely structured concentric levels of programming. The client can move in and out of different levels of treatment without

losing her sense of belonging to the overall program, thus minimizing the chance of her leaving treatment entirely.

Female addicts tend to be highly punitive and judgmental about themselves and others. Treatment programs should attempt to "soften" expectations so that the women can achieve a sense of accomplishment. Continuum-based care allows the individual to move through programs as she is ready to tolerate them, providing a sense of accomplishment.

5.08 Childhood Sexual Trauma and Treatment of Substance Abusers

Moderator: David Smith, M.D.

Speaker: David Smith, M.D.

Until relatively recently, sexual dysfunction rarely was addressed in treating chemical dependency. It was usually left to the patient to initiate discussion of sexual problems during treatment; however, very few substance abusers volunteer information on sexual problems during intake interviews. Because sexual dysfunction is a major barrier to recovery from chemical dependency, clinicians need to be trained to deal with sexual issues.

During the late 1960's and 1970's, clinicians shifted focus from the end stages of the addictive disease to indices of compulsive behavior, loss of control, and continued use despite adverse consequences. Process addictions, including sexual addictions, also were linked to loss of control indices. The evolution of a more integrated model of compulsive behaviors based on an addictive paradigm has increased interest in the interface between addiction and compulsive sexual behavior.

Studies of IV drug users have correlated previous existing sexual dysfunction with onset of addiction and selection of drug. Among substance abusers, enhanced sexual functioning after first starting to use drugs is an indicator of sexual dysfunction before onset of drug use.

Most victims of sexual abuse come from alcoholic or chemically dependent families; these patients report disrupted child rearing. During substance abuse treatment, negative emotions associated with childhood sexual abuse often surface, possibly impairing recovery. The clinician should avoid aggressive treatment in order to minimize chances of relapse.

Stimulant-enhanced sexual desire in early recovery is a major factor in relapse. In this context, clinicians need to deal with pharmacological issues as well as early childhood abuse traumas. The sex therapist must understand the biochemistry of substance abuse and the addictive process, be able to take a detailed sex history, and be mindful of racial and cultural barriers to disclosure of sexual dysfunction.

Speaker: Sander Genser, M.D., M.P.H.

Although numerous studies have associated childhood sexual disorders with psychological disorders, including substance abuse, few causal relations have been established. Substance abusers appear to experience a disproportionate incidence of

childhood sexual abuse. Adolescent and adult victims of childhood sexual abuse report high rates of alcohol and substance abuse. Most of the literature on sexual abuse tends to treat substance abuse as but one of many symptoms seen in sexual abuse victims. Substance abuse issues are not usually incorporated into sexual abuse treatment programs.

Surveys of sexual abuse among the general population have found that boys are more likely to be abused by strangers, whereas girls are more likely to be abused by family members and other authority figures. Most abuse is perpetrated by men; very little abuse is reported among peers.

General symptoms of childhood sexual abuse include emotional disruption and fears, regressive behavior, recurrent nightmares, repressed and overt anger, and low self-esteem with depression. Mnemonic "fears" have been used to represent the basic symptoms of posttraumatic stress disorder diagnosed in many victims of childhood sexual abuse.

The likelihood of completing substance abuse treatment and staying sober is increased if psychological issues, such as childhood sexual trauma, are addressed during treatment. Therefore, providers of substance abuse treatment should be trained to recognize and deal with the many determinants of chemical dependency, including childhood sexual trauma.

Speaker: Janet Chandler, Ph.D.

An increase in the number of IV drug-using mothers presenting with a history of childhood sexual trauma underscores the need for empirical and clinical research on IV drug-using mothers as both perpetrators and victims of sexual abuse. Two relationships have been found between sexual abuse and substance abuse: (1) incest tends to occur under intoxication, and (2) an increased number of women abused as children become substance abusers.

The clinician should screen for a history of sexual abuse at intake in substance abuse programs. Although sexual abuse is a complex phenomenon, several family dynamics characterize childhood sexual trauma, especially incest. The father usually is viewed as a dominant figure, while the mother tends to have had a passive role. There is much role confusion, and generational boundaries are unclear. Abusive families tend to be socially isolated; often a history of abuse exists across generations.

Substance abuse by the perpetrator is a precipitating factor in childhood sexual abuse. Many IV drug-using mothers live alone and report feeling isolated. They use drugs to escape reality and to reduce tension. They often demonstrate aberrant nurturing behaviors.

Children's reactions to sexual abuse depend on their age and the severity, duration, and type of abuse. They will confuse sex and love, tend to be confused about their own sexual identity and societal norms, often feel stigmatized, and demonstrate low self-esteem—characteristics that have been related to the psychology of drug abuse.

A thorough, comprehensive assessment is the basis for an effective treatment intervention. The clinician must be prepared to broaden the intervention to accommodate issues, such as childhood sexual trauma, that may surface during

treatment for chemical dependency. The clinician should focus first on psychological issues and then work through the treatment plan to achieve decreased substance abuse.

5.09 Treatment Planning

Moderator: Karst Besteman, M.S.W.

Speaker: Sidney H. Schnoll, M.D., Ph.D.

Most communities have established two nonparallel treatment systems—a private and a public system. The private system is market-driven; a program will exist only if it can generate enough funding through reimbursements or insurance to cover its costs. In the public system, funds are derived from Federal, State, and local governments. Also, political motivation, rather than rational thinking, often determines the kinds of treatment offered in the public system.

Treatment in the private system usually is provided within an acute care or residential rehabilitation setting or by a private therapist delivering individual or group therapy. In the public system, the patient usually is admitted to an acute care facility because of some immediate medical need. The substance abuse is identified, and the patient is offered some minimal treatment or referred to another program. Therapeutic communities and outpatient services generally provide the treatment within the public system.

Unlike other types of medical services, public and private substance abuse treatment systems rarely interact. Because services are not integrated within or among systems, patients tend to stay in the treatment settings they first enter rather than move on to another program that may be more appropriate to each patient's current or future needs. Special populations, such as the mentally handicapped, pregnant women, and racial and cultural minorities, require very specific types of treatment that may not be provided in the setting they enter.

Drawing on a variety of health care professionals from various disciplines with different viewpoints, a true multidisciplinary approach provides the best level of care. Every community should provide the widest array of treatment services possible. Those services should be integrated to ensure that the patient is not forced into a fixed treatment setting because it is the only one available.

Speaker: Richard Schottenfeld, M.D.

In developing an effective treatment plan, the clinician should consider how to triage the presenting patient into the optimal program and how to determine appropriate treatment modalities within a specific program. The treatment plan should describe precisely those services that relate to the patient, the patient's specific identified needs, and the patient's current clinical problems. The treatment plan also should match the patient to specific interventions designed to improve outcomes. Patient-treatment matching can be used to determine the optimal treatment strategy, intensity, frequency, and duration of treatment as well as specific interventions. Matching criteria place patients in the most appropriate treatment. Criteria that

determine the initial type of program are based on the major drug of abuse and the severity of the dependence and stage of addiction. Criteria that determine the treatment setting are based on the existence of social supports for abstinence, the patient's motivation, cues for relapse, and other psychiatric and medical problems. The patient also should be matched to phases of treatment based on evaluation and stages of recovery; treatment goals will vary within each of these phases. The patient's stage of motivation also will drive the treatment plan.

The treatment plan also may be based on the patient's psychotherapeutic and conceptual level. A patient with a low-conceptual level should benefit from a traditionally structured drug counseling program; a high-conceptual level might indicate chemotherapy coupled with innovative counseling.

The clinician will implement outcome interventions according to the patient's goals for treatment. The orchestration of these settings, modalities, and goals of treatment over time is a complex process which requires continuous reevaluation of the patient's progress.

Speaker: Barbara S. McCrady, Ph.D.

Treatment intervention should be based on an indepth assessment of the patient's immediate needs, level of care, readiness to change, goals, and need for medication. The treatment model should include an analysis of the patient's substance abuse and what sustains that abuse. The intervention also should attempt to enhance the patient's motivation to change, modify the antecedents of abuse, and rearrange the consequences of abuse.

The cognitive-behavioral model is an attempt to analyze the substance abuse while trying to connect the abuse (response) to the environment (high-risk situations for abuse) and ascertain how the patient feels about those situations (internal reactions). The intervention should assist the patient in learning responses other than substance abuse. The behavioral model assumes that positive consequences of abuse exist that maintain or reinforce the substance abuse, and that negative consequences of abuse exist that bring the patient to treatment. The antecedents and consequences of substance abuse are examined across three levels: the individual, the family, and other interpersonal systems that may influence the individual's substance abuse.

An understanding of the individual's internal reactions to high-risk situations is critical in designing the treatment plan. The individual's internal reactions may be physiological, affective, or cognitive. Positive consequences of substance abuse include loss of withdrawal symptoms, loss of negative affect, increased illusion of self-confidence, and loss of craving.

A cognitive-behavioral treatment plan allows the clinician to analyze high-risk situations, the reactions (antecedents) and responses of the individual, and the consequences of substance abuse for that individual. Incorporated into the treatment plan are factors that are tied directly to the substance abuse as well as to the patient's general life circumstances, individual vulnerabilities, and relationships with others. The clinician can then decide at what level and when to intervene in order to assist patients in understanding their internal reactions and responses and in recognizing the positive consequences of stopping substance abuse.

The behavioral approach is a heuristic model that allows the clinician to help clients understand the links among substance abuse and other areas of their lives and appreciate the rationale for the particular treatment strategy.

5.10 Drug Abuse Funding and Treatment Resources

Moderator: James M. Kaple, Ph.D.

Speaker: James M. Kaple, Ph.D.

NIDA's intramural and extramural services research investments over the past few years are leading to an improved understanding of the organizational, structural, and financial characteristics of the Nation's drug treatment system and the clients it serves. Services' research in place and planned for the future will enhance the knowledge base necessary to inform future policy decisions affecting the financing and delivery of drug abuse treatment in both the public and private sector.

NIDA's Services Research agenda has been developed around six central areas of interest. These areas of interest have been refined and restated as follows:

- Client: need, demand, utilization, characteristics, morbidity, and co-morbidity;
- Treatment/Services: capacity, cost, utilization, access, organization, and personnel;
- Treatment/Services: cost-effectiveness, efficiency, and quality;
- Financing: funding, reimbursement, insurance, and cost-containment;
- Drug Abuse Services in Context: prevention, employment, criminal justice, law enforcement, and other social systems variables; and
- Services Research Methods, Statistics, and Data Development.

Speaker: Dean Gerstein, Ph.D.

At the request of Congress, the Institute of Medicine recently released a study which focuses on (1) the need for treatment, (2) the objectives of treatment, (3) the effectiveness of treatment, and (4) the organization of the treatment system. The study made recommendations about the financing, organization, and evolution of treatment systems.

The study pointed out that it is important to distinguish use, abuse, and dependence. "Use" is defined as low levels of consumption in which consequences are not apparent, and clinical treatment is inappropriate. "Abuse" usually involves episodic higher levels of consumption and a set of consequences ranging from minor to severe. "Dependence" involves high levels of consumption and multiple consequences, and it is in the class of chronic relapsing disorders.

Recent data quantify the need for treatment. In 1988, of 200 million persons over age 12, 75 million had used drugs at some time, and 15 million had used drugs

in the preceding month. Of those, 3.5 million would meet clinical criteria as drug abusers and 2 million as drug dependent. One million people were admitted to treatment in 1988.

Clinicians and those paying for treatment have three objectives: (1) to reduce consumption and other crime, (2) to improve the health of the individual in treatment, and (3) to enhance family life and life employment. Failed self-treatment usually precedes seeking out a treatment program. From the client's view, treatment is seldom fully voluntary, and more than one treatment episode is typical.

The fundamental classifications of treatment programs are methadone maintenance, therapeutic communities, outpatient nonmethadone maintenance, and chemical dependency. The study data support three generalizations about treatment effectiveness. Within each modality, longer treatment durations correlate with better outcomes. Performance varies across the specific programs within a modality. Where benefits have been calculated, they exceeded the costs.

There are four major priorities for public treatment: (1) treatment program capacity needs to be increased to allow for timely admission, (2) overall quality needs to be improved, (3) more programs need to be tailored for women with children, and (4) services to the criminal justice population need to be enlarged. To meet these priorities, it is estimated that an increase of $2.2 billion over 1989 levels is needed for a comprehensive approach, and $1 billion is needed for a core initiative. Recommendations on the private side are to improve performance data, reduce high-cost admissions, and focus on keeping people in treatment longer by reducing cost per unit.

Speaker: Anita Lewis

The Drug Services Research Survey (DSRS) obtained data on utilization and capacity for drug abuse treatment supplemental to the National Drug and Alcoholism and Treatment Unit Survey. DSRS collected data on waiting lists, pregnant women, HIV clients, primary drugs of abuse, multiple use, and methadone clients. The first phase of the survey collected organizational and aggregate data. The initial contact was made by a screening phone call to establish eligibility as a provider. A survey was mailed, and responses were collected by phone. The project's second phase addresses client-level data.

Findings of the first phase for 1,125 facilities yielded a national estimate of 7,261 programs treating drug abuse clients. Nearly two-thirds of these programs were owned by private, nonprofit organizations. The estimated capacity was approximately 711,000 clients (531,000 for drug abuse or combined drug and alcohol abuse, excluding alcohol-only clients in DSRS facilities), based on 84 percent of the facilities which reported capacity and defined as the maximum number of active clients who could be served. The utilization rate for drug abuse clients ranged from 56 percent for inpatient programs to 97 percent in maintenance programs. The overall utilization rate was estimated at 90 percent in DSRS facilities.

There were an estimated 836,000 alcohol and drug abuse clients in treatment in DSRS facilities as of March 30, 1990; an estimated 633,000 were drug abuse or combined drug and alcohol abuse clients, excluding alcohol-only clients in DSRS

facilities. More than 108,000 clients were estimated to be waiting for treatment, mostly for outpatient services. Most applicants waited 1 month or less, but 37 percent waited 1 month or longer. Publicly funded facilities were more likely to have waiting lists and longer waiting periods. Forty-one percent of the clients were expected to be covered by public funding; only 14 percent of the clients were expected to be covered by private insurance.

Speaker: Constance Horgan, Sc.D.

The DSRS collected cost data on providing drug abuse treatment at the aggregate facility level and broken down by modality. Eighty percent of the facilities were able to report total cost data; 71 percent of the facilities remained in the analysis because some facilities were dropped. Facilities were dropped if they were less than 1 year old, had a financial reporting period not equal to 12 months, or were treating only alcohol abuse patients.

The ability of facilities to provide cost data by modality was substantially less than at the aggregate facility level and varied by type of modality. More than 70 percent of the cost data at the hospital inpatient modality were not reported. The residential drug-free and outpatient drug-free modalities were the most likely to be able to report modality-specific data with 32 and 40 percent, respectively, missing data. Response on the cost data from private for-profit facilities was less likely than from other facilities. Private for-profit facilities were the least likely to report cost data.

The cost data from DSRS should be further analyzed from a methodological perspective to determine what types of facilities can/will report cost data and at what levels of aggregation they can report. Analysis of this cost data can be used to develop strategies which will increase facilities' ability to report costs in the future.

Speaker: David Mactas, M.A.

There is no lack of agencies and opportunities to investigate in order to add to your organizational résumés. The message from the Federal level and others is that staying small is not the way to go. Expansion requires learning the language of business. People in the field have learned to speak the language of a variety of disciplines. It is impossible to appreciate the details of the many areas with which one must be conversant.

Marathon, Inc., had an opportunity to expand its program and exercise innovation and resourcefulness to address the bifurcated system of treatment for the "haves" and the "have nots." A State plan established the need for an adolescent program for 20 kids. A 155-acre site was purchased for the facility. To get authorization from the town, the organization agreed to pay taxes on the facility. The facility, Huntington Lodge, was eventually staffed and made ready for operation. However, while the State plan said there was a need for the service, there was no demand from the community. Huntington Lodge became a "preferred provider" of Blue Cross and Blue Shield, but the people who drove placements, the parents in this case, preferred others providing less heterogeneous programs for the same cost. It was decided that

Huntington Lodge needed to market itself differently, and that it needed to get accredited. This required adding more money to the program; ultimately, $850,000 was spent on a $500,000 budget.

There was no consistent corporate personality at the facility. For service programs to be successful, they must be built on an organizational ethic, a clinical foundation, an approach to treatment, and a particular view of addiction. Thus, the program was closed for 6 months and reopened. Although it is losing money, operating the program is less expensive than closing it down and bearing the expense of taxes, property protection, and maintenance in the absence of any income. During this period, Marathon will endeavor to broaden its referral base and maintain quality services while containing costs.

The message is: "Be careful in expanding." If the organization exceeds earlier expectations, the organization's administration must be more capable than it was earlier or serious problems will result.

5.11 Overview of Medications Development

Moderator: Herbert D. Kleber, M.D.

Speaker: Leonard Handelsman, M.D.

The emergence of new pharmacological treatments for drug abuse is shrouded in moral, political, economic, and competitive issues. It is further complicated by confusion over whether a new drug has a demonstrable effect under a given set of experimental conditions. If it does, is it going to be helpful? If a drug reduces cocaine use or craving in an experiment, clinicians must determine whether it will be a useful treatment for their own patients. The target effects of drug treatment that are linked to complex patient and treatment characteristics determine whether the drug will have detectable or useful effects in the natural setting.

As an example of the problems encountered in developing medication for drug abuse treatment, a study was described which addressed the efficacy of amantadine in reducing cocaine use and craving in a 2-week waiting list program. Pharmacologic treatment had an effect on use only during the first week. The number of days of cocaine use in the previous month was the most powerful predictor of cocaine use during the waiting list period. The level of reported cocaine use upon entry to the waiting list was rather low. This indicates that a basement effect occurred, i.e., patients had decreased the amount of cocaine use because they were already highly motivated. By the second week on the waiting list, patients' cocaine use had decreased even more. It also is harder to detect differences attributable to medications under circumstances of very high staff morale and behavioral intervention.

Community-based programs sometimes lack resources to collect data or do not have a sufficient sample to determine whether a putative treatment is useful. Either of these can lead to superstitious behavior, anecdotes, and gossip rather than to a coordinated understanding of the potential utility of the medications. Without a coordinated effort on a national or regional basis, we may not be able to determine

whether and how drugs that appear to have clinical efficacy in well-designed studies should be applied in the clinical setting.

Speaker: David Gorelick, M.D., Ph.D.

Medications development consists of the following steps: medicinal chemistry to design and synthesize compounds that may have therapeutic potential, in vitro testing, in vivo testing, animal behavioral tests of self-administration, and testing in the living human. The last two are experimental tests in controlled conditions and clinical tests with human patients.

One of cocaine's major central nervous system (CNS) actions that may relate to its abuse potential is its promotion of kindling in the brain by blocking synaptic dopamine re-uptake. Because carbamazepine blocks kindling, it was postulated to have possible action against cocaine. In vitro tests of the cocaine/carbamazepine interactions revealed that carbamazepine interfered with the kindling effect and blocked seizure stimulation, but had no effect on dopamine re-uptake. In vivo tests revealed a genetic influence; effects varied in different mouse strains. On the behavioral level, carbamazepine reduced cocaine self-administration in high versus low responders, indicating a possible effect in heavy versus light addictions. Human trials have found no change in subjective effects.

Problems faced by the clinician in interpreting evidence include whether the characteristics of the patients and circumstances can be generalized and whether effects are long or short term. Another issue is statistical versus clinical significance; it is easier to show statistical significance of effects of small magnitude in studies with large samples. The clinician must judge whether the effort, expense, and risk to the patient is worth the clinical benefit that can be expected.

Speaker: Charles R. Schuster, Ph.D.

The Medications Development Division (MDD) was created in response to needs for alternative medications to methadone; drugs to treat other addictions, such as crack and cocaine addictions; medications to supplement behavioral and other treatment strategies; and medications to treat CNS changes that may be responsible for craving. MDD's $36 million budget comes from specific appropriations from Congress, reallocations from the AIDS prevention program, and from ADAMHA, because NIDA has been designated as ADAMHA's lead institute for medications development.

NIDA was instrumental in the development of naltrexone for heroin addiction and in testing the effectiveness of nicoret gum for tobacco dependence.

The reluctance of pharmaceutical companies to get involved in medications development for drug abuse treatment stems from a lack of economic incentives, a belief that drug abuse is a moral rather than a medical problem, and fears of stigmatization and liability.

MDD seeks to develop medications that will accomplish one or more of the following objectives: (1) block the effects of drugs of abuse, (2) reduce the cravings for drugs of abuse, (3) restore CNS chemical equilibrium disrupted by drugs,

(4) moderate or eliminate withdrawal syndromes, and (5) antagonize toxic effects. Another MDD objective is to develop other substitute drugs like methadone.

In collaboration with industry, academia, and other agencies in the public sector, MDD is working to support the early phases of testing and later clinical trials.

Speaker: Frank Vocci, Ph.D.

The medications development process involves many program components. The Chemistry-Pharmaceutics Branch is responsible for drug discovery efforts, preliminary screening, research and development for dosage and formulation, pharmacokinetics screening, a drug screening program for urine, and blood testing for drugs of abuse.

After drugs come in from various sources, such as medicinal chemistry grantees, pharmaceutical companies, the ADAMHA intramural program, and academia, they undergo in vitro and in vivo screening and are put into the structure-activity data base to identify lead candidates for clinical testing. In bringing a drug to market, an 8- to 10-year process then follows that culminates in the filing of a new drug application. Our goal is to trim that time so that companies can go directly to Phase II testing. The Pharmacology-Toxicology Branch performs in vivo CNS screening, specialized behavioral testing, tests to determine whether a compound itself has potential for abuse, and the special teratological and immunological testing required by the FDA.

The clinical testing program is based on cooperative agreements with the Veterans' Administration system and with treatment research units at various academic centers to perform various types of trials. Multicenter testing is necessary and important to gain the statistical power to detect mild to moderate effects, to obtain an adequate safety data base, and to obtain the data within a reasonable timeframe.

5.12 Staff Burnout Issues

Moderator: Jack Stein, M.S.W.

Speaker: Jack Stein, M.S.W.

"Burnout" is a term that has been tossed around in the drug treatment arena for years. What does it mean? Does it really exist? How serious are we about it? It is important to define burnout and examine some of the issues surrounding it.

Emphasis needs to be placed on real-life situations and not just semitheoretical principles. The work environment does not exist in a vacuum. Managers need to keep in mind that workers are impacted by a variety of nonwork issues which influence their ability to function on the job and in the home.

Speaker: Glen Fischer

Herbert Freundenberger, in *Burnout: How to Beat the High Cost of Success,* defines a person with burnout as "someone in a state of fatigue or frustration brought about by devotion to a cause, a way of life, or a relationship that failed to produce

the expected rewards." Burnout symptoms include chronic fatigue (real exhaustion), passive-aggressive behavior, increased absenteeism, increased existing dependencies, resistance to new ideas, and hypercritical behavior toward others.

Burnout begins slowly. Denial, a real energy zapper, is the key element. Whenever the expectation level dramatically contrasts reality and whenever the person persists in trying to reach that expectation, the person is on a treadmill. This treadmill depletes human energy, resources, vitality, and ability to function. Suspicions of being unappreciated, cynicism, a sense of omnipotence, paranoia, depression, and psychosomatic complaints follow. The four themes of denial include failure, fear, age, and death.

Burnout may not be the actual problem in a given situation. People sometimes mistake stress for burnout. Stress can be positive; the problem is when it becomes distress. When you perceive stress overload, you should look at all the issues, decide what applies to you, and determine what you can do to control them. AIDS workers also are subject to burnout, but may mistake bereavement overload for burnout.

Speaker: Thomas D'Aunno, Ph.D.

Two national mail surveys examined the sources of work stress and job satisfaction and their consequences for drug abuse treatment counselors. The project, sponsored by NIDA and NIMH and conducted at the University of Michigan, gathered data from a representative sample of outpatient drug abuse treatment counselors for the years 1984 (650 counselors in 180 treatment units) and 1989 (400 counselors in 75 treatment units). Response rates were similar for both surveys.

The study findings show that the two different groups of respondents demonstrated a large amount of stability in terms of job stress and satisfaction issues, although job satisfaction slipped slightly in 1989. According to the surveys, the likelihood of job turnover has decreased since 1984, possibly due to the economic downturn in this country. Overall, things do not appear to have gotten worse since 1984, at least for those people who responded to the surveys.

Job characteristics (including autonomy) and role demands were examined in the 1984 and 1989 surveys. Most respondents felt they had enough autonomy (control) to do their work; this feeling of control reduces stress levels. The biggest problem centered around role demand. Many people felt that too many demands were placed on them.

Role ambiguity and role conflict also were examined in the 1989 survey. Generally, respondents were clear about their roles, but a significant number said they received conflicting messages.

The Hopkins Symptoms Checklist was used to gather data on health aspects of outpatient drug abuse counselors. Approximately one-fourth of the sample were affected by depression, anxiety, and somatic and general health symptoms, although the exact percentage varies per scale.

In the 1989 survey, we investigated whether AIDS had affected counselors' health and work stress. About 37 percent of the respondents said that AIDS had affected them emotionally within the last 7 days; however, many said that it did not affect their own general functioning. Many respondents said that they did not shy

away from work with needle users, but about 21 percent felt they had increased job demands and needed more AIDS-related training. When asked if the threat of AIDS made people think about quitting their jobs, many responded negatively.

Even though the findings were quite constant over the 4-year period, there is a portion of each sample that is at risk for burnout, and efforts are needed to address these concerns.

Speaker: Paul Purnell, M.S.

While all the symptom areas of burnout (social, physical, system, and psychological) are important, social symptoms and system or institutional symptoms bear further discussion. Social symptoms of burnout include depersonalization, overbonding within the workplace, increased interpersonal conflicts, termination of long-term relationships, and increased sexual promiscuity. System or institutional symptoms on an individual level include high turnover rate, absenteeism, poor communication, turf battles, decrease in quality of service, and staff breakdowns. Symptoms within the organizational system include sabotage, organizational breakdown, job dissatisfaction, and increased errors or accident rates.

Many things can be done to reduce the rate of burnout within the work system and nonwork ecosystems. *The Relaxation and Stress Reduction Workbook* covers such techniques as self-hypnosis, time management, nutrition education, breathing exercises, progressive relaxation techniques, biofeedback, and noncompetitive physical exercise to alleviate burnout. Improving hiring practices and job training, instituting "timeout" periods, monitoring overtime, modifying physical environment, and increasing worker recognition help to reduce staff burnout.

Reducing stress in the practitioner's nonwork ecosystem can be a little more complicated because of the personal nature of each individual. We need to look at the things that create tension, such as the "isms—racism, sexism, and ageism." In some instances, practitioners need to be referred to other types of support.

The book entitled *Stress Management in Work Setting*, published by the Government Printing Office, provides a number of instruments that can be used to measure job satisfaction, among other things. The instruments provided include the Human Factors Inventory, Organizational Management Survey, Malasch Burnout Inventory, and Work Environment Survey.

5.13 Drug Abuse Prevention for African Americans

Moderator: Vivian Smith, M.S.W., L.I.C.S.W.

Speaker: Garry A. Mendez, Jr., Ph.D.

African Americans need to stop, back up, and identify solutions for African Americans' problems and stop implementing solutions dominated by European thought. European-based theories neither demonstrate an understanding of the African culture nor offer effective solutions for African Americans' problems. Solutions that are appropriate for one population are not automatically transferable to another people. For example, African Americans have a different concept of life

and death, and the threat of the death penalty will not impact them as it will other ethnic groups.

Black history, culture, language, and values were lost to Africans when they came to this country, and these losses present problems when developing appropriate prevention strategies. It is necessary first to understand the history of a people before attempting to alter behavior. History frames culture, culture frames lifestyle, and lifestyle frames behavior patterns. To change behaviors, it is necessary to regain what was lost and to return to African American values.

African Americans must deal with their identity (history, culture, and values) and concentrate on educating their children beyond the three Rs. School is not the place for teaching children who they are; this instruction must take place in a culturally specific setting, perhaps in a free school run by volunteers on Saturdays.

Speaker: Sharon Shaw, Ph.D.

Necessary components of an effective African American prevention strategy include ideology, content, and methodology. Ideology reflects why something is being done. Ideology must be concerned with the "why" and ensure that what is being done is dictated by the culture represented.

Content reflects what is being done. Prevention programs for African Americans must be culturally relevant with respect to the biological and physical stance; the psychosocial domain; the economic aspect; and the cultural, traditional, and spiritual realms. Programs must teach critical thinking and decisionmaking skills so that people learn that they do have options in life.

Methodology reflects the "how" about what is being done. Methodology must be implemented in the way that culture dictates. For example, African Americans are much more attuned to audiovisual ways of communication (Afrocentric) than to the analytic approach (Eurocentric). The family-based group approach works well for African Americans because it promotes strength, which promotes self-identity. Building strengths promotes self-identify, which brings out relevant aspects of the culture such as the importance of kinship bonds.

Speaker: Louise White, Ph.D.

NIDA is the lead Federal agency for conducting research into the prevention, treatment, and epidemiology of drug abuse and drug use behavior and its relationship to contracting and transmitting the AIDS virus. NIDA also is responsible for communicating and distributing outcomes of research. NIDA provides grants and contracts for research on drug abuse and drug abuse issues; OTI and OSAP provide opportunities for conducting demonstration projects, the findings of which are used to refine NIDA's research.

Significant indicators that emerge from research impact future prevention program planning. Progress in drug prevention programs is continuing. Comprehensive programs using multistrategies within the community setting are judged to be more effective. Emerging trends impact program design; that is, as changes in social norms occur, program change also is likely to occur. Greater effort is needed to include family interventions into programs.

African Americans do have cause to care about effective and comprehensive drug abuse prevention programs. The 1990 National Household Survey on Drug Abuse found no significant reduction in drug use, especially cocaine, among African Americans and Hispanics between 1988 and 1990. In recognition of the problem, NIDA has opened two Minority Prevention Research Centers, which will provide valuable information to help the African American population.

5.14 Drug Abuse Prevention for Hispanic Americans

Moderator: Ana Anders, M.S.W.

Speaker: Jose Szapocznik, Ph.D.

In a major NIMH-funded study, Hispanic American children with problems were assigned to a family therapy condition, an individual therapy condition, or a control condition to determine the comparative effectiveness of these approaches. The control program was unsuccessful in keeping the children in the program. However, the other two conditions were effective in removing the problem. Functioning of the families of the children in family therapy improved significantly. However, the families of those in individual therapy deteriorated, and other children in these families were living in a more troubled atmosphere.

A family is made up of individuals who all depend on one another. The family affects every member, and when one part is changed, other parts are affected. There are certain ways in which a family interacts that cause disruptive behavior to occur. Some of the issues to consider include the following: whether there is agreement among the family's power figures, whether alliances are across generations, the kinds of responsibilities various members have and how appropriate the responsibilities are for their roles, and the kinds of consequences the behaviors have on a family.

From a developmental standpoint, certain things are expected from parents. Many parents abdicate parental responsibilities, leaving no one in charge. Also, children may grow up with too much or too little responsibility. Such situations give rise to various symptoms. If the symptoms are removed by individual therapy but nothing is done for the rest of the family, the rest of the family suffers.

Areas of interest from the prevention standpoint include the parent being in charge, appropriate and effective behavioral control, and the nature of alliances within the family.

Speaker: Mario De La Rosa, Ph.D.

There are a number of interesting trends to look at in NIDA's National Household Survey on Drug Abuse. Generally speaking, lifetime illicit use of drugs is dropping for all groups except males between the ages of 26 and 34. Drug abuse rates among Hispanic females have been relatively low but now are increasing. In the 1985 survey, the only group showing total lifetime use increase was the Hispanic group.

Cocaine use is a problem for Latinos. The 1988 survey shows lifetime cocaine use to be a serious problem for those aged 12 to 17; use doubled for Hispanics aged

26 to 34. Cocaine use by females increased from 5 to 8 percent, with a significant increase among younger women. The 1988 survey data show that past month cocaine use was highest for Hispanics. In the 1985 survey, Hispanics had one of the lowest rates of past month cocaine use.

Data from the 1985 Hispanic Health and Nutrition Examination Survey indicate that marijuana was a serious problem for Mexican Americans and Puerto Ricans for both lifetime and past month use, but this was not true for Cubans. Lifetime cocaine use seems much worse for Puerto Ricans than for Mexican Americans and Cubans. Therefore, it is important to examine different issues.

Overall, Latinos smoke at a much lower rate than other groups. Latinos less than 20 years of age have fewer alcohol problems than white non-Hispanics, but among those 21 and over, alcohol use is the highest of any group. Treatment must take this into consideration.

While a lot of information has been collected, we are at the beginning stages of understanding the drug use behavior and patterns among Hispanics. When looking at the causes of drug use among Hispanics, it is necessary to look at issues that relate to Hispanics, such as family, poverty, schools, acculturation-related stress, etc.

Speaker: Charlene Doria-Ortiz

Programs that are culturally different or that serve a population that is different are exceeding the norm. Bridges must be built between the research data that exist, how practical these data are to the day-to-day operation of prevention programs, and how these two areas come together. There is no feedback loop from research to practical application to design and back to the community. One program, such as methadone maintenance, may compound another problem, such as alcoholism. There also should be research on targeting done by industries, especially the tobacco and alcohol industries.

The major problem found in community-based systems is that most systems do not know how to deal with differences. It is not sufficient to develop Hispanic-oriented units in an Anglo program. While one part of the program may understand the problem, the rest of the program may not. In prevention programs the child may be improved, but the program may be removing a key person from the family rather than finding a mechanism to go into the family.

There are four issues in a program model. The program must be available and accessible. Additionally, the design must be acceptable to the community. Finally, the community wants to be held accountable but also wants research, evaluation, and documentation designed to fit and be compatible with kinds of things being learned.

The success of Hispanic community-based prevention models depends on the awareness and skill of policymakers, not service providers, to respond to cultural strengths and resources found in the communities. Prescribed and prepackaged prevention strategies, techniques, and programs are totally inappropriate from our cultural and linguistic perspective. The business world uses sophisticated techniques to sell products. State and Federal substance abuse prevention efforts should do the same thing to sell health, individual and family well-being, and community unity against substance abuse.

Speaker: Elbert Ocanas

The Parents Association for Drug Rehabilitation & Educational Services (P.A.D.R.E.S.) is a grassroots organization that began in 1984. The first 2 years were spent on awareness using many methods to gain name recognition. With grants from OSAP, P.A.D.R.E.S. was able to initiate a program with four main components.

The first component is Project DEAN, the Drug Education Action Network, which works within the school system to provide drug education in the classrooms to preschool, elementary, and junior high students. The program evaluator found a 39 percent learning gain among children in the program.

The second component, Mandatory Expulsion Career Counseling Alternative, provides a counselor to work with children as an alternative to expulsion for being caught with marijuana or alcohol or for violating the school drug policy. A 6-week counseling program at P.A.D.R.E.S., which involves the parents, is required. If completed, the child is allowed to remain in school.

"Say Nope to Dope Clubs," the third component, involves children from housing projects in small clubs. This program includes drug education, field trips, and parental involvement to help build self-esteem and educate children about the evils of drugs.

The fourth component is the P.A.D.R.E.S. Partners program, which matches a child at risk with a person from the business world.

The style of P.A.D.R.E.S. is to make approaches fun, involve the family, and involve the business community using successful Hispanics as mentors and role models. P.A.D.R.E.S. is no longer limited to the Hispanic community.

5.15 DRUG ABUSE PREVENTION FOR NATIVE AMERICANS

Moderator: Eva Smith, M.D.

Speaker: Delmar Boni., M.Ed.

The 10 basic concepts of traditional spirituality for American Indians are that (1) American Indians have a belief in a supreme creator; (2) each person is a three-fold being, composed of a body, mind, and spirit; (3) all physical things, living and nonliving, are part of the spirit world; (4) the spirit existed before it came into a physical body and will exist after the body dies; (5) illness affects the mind and spirit, as well as the body; (6) wellness is harmony in body, mind, and spirit; (7) unwellness is disharmony in body, mind, and spirit; (8) natural unwellness is caused by the violation of a sacred or tribal taboo; (9) unnatural unwellness is caused by witchcraft; and (10) each of us is responsible for our own health.

The basic Apache concepts of harmony, disharmony, religion and medicine, and ceremonies are discussed below.

Harmony is the natural or correct state of all things, including man. Far from being dominant over nature, man is seen as interdependent with other living beings and physical forces. Likewise, an individual is dependent on his family, his clan, and the people as a whole. All Apache thinking is grounded in relationships. More emphasis is given to the "connectedness" of one thing to another than to the things

in and of themselves. To maintain correct or natural relationships is to be in harmony. Everything that exists is related to everything else. The universe is a complex matrix of interdependence. There is a proper set of relationships for each being and a proper way of existing in harmony with the universe.

Disharmony is interpreted as all human suffering. People suffer because in some way they have fallen out of harmony. The person who does not feel well has gotten out of phase with the matrix of correct relationships. Consequently, what Western man interprets as a specific disease is only a symptom of underlying disharmony for the Apaches.

Religion and medicine are inseparable. In fact, healing ceremonies are an integral part of the community experience—there is no distinct term for religion in the Western sense. Ceremonies make the patient the center of interest. The whole community's support is lavished freely. Relatives feel that restoring harmony to one person improves the harmony of the people as a whole. The ceremony relates person to environment, past to present, and natural to supernatural. Ceremonial songs involve "an interplay between patient, healer, group, and the supernatural which serves to raise the patient's expectancy of cure, helps him to harmonize his inner conflicts...and strengthens his sense of self-worth."

Speaker: Eva Smith, M.D.

A variety of effective traditional and ceremonial approaches that does not receive attention in the literature is being used with Native Americans. Measuring these approaches' effectiveness has been a problem for researchers—yet, these approaches do work. Applied research techniques need to be developed to examine these approaches from a qualitative rather than a quantitative standpoint. Looking at the multiplicity of substance abuse prevention, there are lessons to be learned that can extend beyond the Native American community.

Speaker: Philip A. May, Ph.D.

The "Drunken Indian" stereotype clouds everything we do in prevention, treatment, and public health. Outcome data involving motor vehicle accidents seem to perpetuate this stereotype. What these data do not show are the factors, such as geographic location, that influence the statistics. Many American Indians live in remote areas which are on less traveled roads and which do not have immediate access to hospitals. To make matters worse, many American Indians believe they have a physiological weakness to alcohol (studies do not substantiate this). In reality, rates of alcohol abuse vary from tribe to tribe and from location to location.

American Indian social and cultural factors greatly influence alcohol abuse. Tribes that traditionally have had high social integration (i.e., strict adherence to norms) exhibit a low rate of substance abuse. Tribes with low integration generally have higher rates of substance abuse because individuals are allowed much more freedom. In addition, tribes with acculturation stress (i.e., pressure to modernize) exhibit higher rates of substance abuse.

School-based prevention efforts over the past 5 years have been significant. Although problems (marijuana, alcohol, and inhalant/solvent use) vary per State, it

appears that school dropouts and those who are unable to successfully integrate after graduation are at greater risk for alcohol and drug abuse. Adverse norms of negative peer groups dictate the quantity and frequency of substance abuse as well as behavioral expectations while under the influence.

The time is ripe for community-based prevention efforts. Policy is an unexplored area of prevention. Reservations need to design policies that can minimize problems and maximize safety, sobriety, and sanity. Finally, greater efforts are needed to reduce the incidence of Fetal Alcohol Syndrome.

Speaker: Travis Jackson, M.S., M.B.A. *(in absentia)*

Administrative assumptions of the Commitment to Excellence alcohol and drug abuse community development program sponsored by the Colorado River Service Unit, tribes, Indian Health Service, and Bureau of Indian Affairs are as follows:

- Not all changes require money.
- Tribal Action Plans, which vary considerably, should be the focus of local efforts.
- Not all program personnel are aware of the role changes required to have positive impact.
- Each tribe has not yet decided what is all right and not all right in substance use/abuse.
- Behavior changes of alcohol-related programs are dependent on local tribal actions.
- All alcohol efforts should be channeled into the regular method of doing business.

In 1977 Joe Trimble, who performed research with Native Americans, developed a seven-step process for conducting research with this special population. This process has been strengthened by incorporating suggestions for current use. The seven steps are:

- Initiate contact with community members such as Tribal Chiefs and Tribal Coordinating Committee members to substantiate the need and value of the research.
- Organize an advisory committee composed of community representatives by contacting Tribal Health Boards or Community Coordinating Committees.
- Assess the probable impact of the research process and its results on the community with advisory committees. Information can help establish data for Tribal Action Plans.
- Interpret and justify the research methodology, especially if it is an applied research study.

- Train indigenous interviewers and observers.
- Develop and prepare culturally sensitive instruments, paying particular attention to language barriers and misconceptions.
- Report the findings to community members in a style meaningful to them that enhances trust.

This last step is extremely important because many researchers have not reported findings to community members in the past.

5.16 Drug Abuse Prevention for Asian Americans

Moderator: Toaru Ishiyama, Ph.D.

Speaker: Toaru Ishiyama, Ph.D.

The information gained about drug abuse prevention strategies has taken a quantum leap within the past 15 years. Despite this, the systematic knowledge base involving Asian American drug abuse prevention efforts has been limited. The little that has been published targets alcohol abuse rather than the broader topic of substance abuse. There is little epidemiological information to date related to Asians, but efforts to gather systematic information continue.

Why is there more information about treatment than about prevention for Asians? First, data suggest that there is a low rate of incidence (not prevalence) compared to other populations. Second, historically, the Asian American community has been socially insulated from others as a means of self-protection. Finally, drug use is not viewed as antisocial but as a part of some cultures. There is no doubt, however, that a drug abuse problem exists in Asian American communities.

Asian Americans are a heterogeneous group of people consisting of many different racial and ethnic groups with different languages, dialects, origins, tenures in America, and degrees of acculturation; some have different values as well. It is important not only to develop culturally sensitive drug abuse programs for Asian Americans but also to strive for cultural proficiency in prevention programs, using the whole cultural history and value system.

Dr. Sehwan Kim of The Drug Education Center, Inc., in Charlotte, North Carolina, has identified the following prevention strategies/models involving Asian American communities: (1) Case Management Model: Basic Needs Approach, (2) Family-Oriented Model, (3) Information Deficit Model, (4) Empowerment Model, (5) Cultural Enrichment Model, and (6) Mutual Support Model. These models are not meant to be mutually exclusive.

Speaker: David Chen, M.P.A., M.A.

The Chinese American Planning Council in New York began teaching English to Chinese immigrants 26 years ago. Today it is a multiservice agency offering more

than 40 programs covering topics such as substance abuse prevention, youth, day care, employment and training, senior citizens, housing, and economic development.

An analysis of the changing demographics of Asians in this country illustrates the growing need for a comprehensive look at drug abuse prevention strategies. The Asian American population has the highest rate of growth among all ethnic groups. Asian Americans comprise 2.6 percent of the total population and are expected to comprise 4 percent by the year 2000. In 1980 Chinese, Japanese, and Filipino subgroups had the largest number of people. Filipinos are expected to be the largest group by the 21st century. The Asian American concentrations on the east and west coasts are expected to change as more Asian Americans move into the Sunbelt and Midwestern States.

Two-thirds of the 60 different groups that make up the Asian population in this country are foreign born. These immigrants bring with them many different religions, languages, dialects, customs, histories, and socioeconomic statuses. Statistics for Asian subgroups must be broken down to get a clear picture of the group.

Situational factors and cultural values, attitudes, and beliefs are influenced by attachment to and conflict with the native culture and the dominant culture, the degree of acculturation, and the generation gap. These can produce value differences, identity crises, and stress, especially in the younger generation.

Prevention strategies are in the developmental and evolutionary stages. It is not uncommon to use an incremental approach starting with basic needs. Various strategies are used in drug prevention, with the Empowerment Model emerging as a particularly useful strategy. The next step is to develop culturally competent prevention programs; for this, we need to secure funding for research.

Speaker: Ford Kuramoto, D.S.W.

The 3-year Programs of National Significance (PNS) Project of the National Asian Pacific American Families Against Substance Abuse, Inc., will identify principles that can be used in other substance abuse prevention programs for Asian Americans. The task of the project, which is funded by OSAP, is to determine what works in providing prevention services. The project design includes a modest evaluation of existing substance abuse projects that are doing well and attempts to glean from them what makes them effective. PNS plans to expand into different cities and serve more ethnic Asian subgroups to increase the range of services.

Because the information on Asian subgroups is limited, it is very difficult to mount needed prevention programs for Asian Americans based on national statistics. As a result, the Asian American Health Forum and the Asian American Organization of Community Health Organizations are working to obtain health-related data on cancer, tuberculosis, hepatitis, and heart disease among Asian American groups. Limited information on the Asian American population, along with the absence of a large-scale research study on this population and its subgroups, has resulted in a dearth of available information. Much more research is needed to develop effective and comprehensive prevention programs for Asian Americans.

5.17 Anabolic Steroids and Other Performance-Enhancing Drugs

Moderator: Lynda Erinoff, Ph.D.

Speaker: Charles Yesalis, Ph.D.

Research has shown a variety of factors associated with teen drug use, several of which may be similar to those related to use of anabolic steroids (AS). Recreational drugs, both licit and illicit, generally are expected to provide pleasurable effects for the user. Although AS do not provide immediate euphoric effects, the physical and psychological outcomes have the potential to affect social status and peer perceptions as well as mood and self-image.

One psychological attitude associated with AS use is a tendency to overlook, disbelieve, or argue against the physical risks of drug use and to perceive the benefits as outweighing the risks. Drug use continues as long as the perceived benefits outweigh the perceived and real problems associated with use. Adolescent substance users usually overestimate the prevalence and acceptability of use by their peers.

Participants in the study were 12th-grade male students in both private and public schools. The mean rate of AS use was 6.64 percent. Use levels among respondents included 40 percent reporting five or more cycles of use, 44 percent reporting using more than one AS at the same time, and 38 percent reporting use of injectable AS.

Self-reported users were presented with health risk scenarios, and one out of four stated their intentions to continue use regardless of dire health consequences. Adolescents who have completed more cycles and who initiated AS use at an early age are more likely to exhibit those behaviors, perceptions, and opinions that are consistent with habituation. Heavy users are more likely to report intentions to continue use regardless of long-term health consequences. AS users reported a significantly greater prevalence of use than did nonusers.

For AS users, feeling good about oneself can result from increased self-esteem and positive peer admiration precipitated by improved appearance and performance. These outcomes are strong reinforcers, as are the altered mood states often reported with higher levels of AS use.

The data indicate that, at the least, a major intervention effort should be directed at early adolescents. All geographic areas should be included, as the study did not detect any significant differences in use rates between rural and urban or Sunbelt and non-Sunbelt schools. Prevention campaigns might have to employ different strategies to address each motivation.

Speaker: Paul Goldstein, Ph.D.

Increased criminal sanctions have been imposed on distribution, possession with intent to distribute, and trafficking in anabolic-androgenic steroids (AAS) at both Federal and State levels. AAS were scheduled as controlled substances in 1990. Solid research data are needed, but steroid users and traffickers are reluctant to talk to interviewers because of the increased penalties.

In addition to epidemiologic data, researchers need data on distribution and health consequences. Substance abuse researchers have conceptualized a natural history of drug use in three steps. An exploration stage is followed by a stage of continuing use and then by a stage of cessation from use.

In the exploration stage, many people are looking for a competitive edge in athletics. Use of performance enhancers is not new, and athletes use a variety of methods other than steroids today, including dietary regimens, bicarbonate loading, caffeine loading, and hypnosis.

In the continued use stage, the addictive nature of the substance, the habituating effect of the workout routine, and the feelings of muscularity and strength that arise create a syndrome of continued and habitual use. Some users report that feelings of power become so associated with AAS use that they begin to use AAS in social situations in which they feel insecure. The gym culture perpetuates use, and peer pressure is very strong.

Most users tend to enter the cessation stage for one of two reasons. Younger users mature out as they place higher value on other things such as family and career; older users quit only when their health is seriously threatened.

Many steroids available in the United States are smuggled in, and many of these are counterfeit and often made in crude, unsanitary laboratories. Counterfeit steroids also are produced in the United States. The trend in use has been toward veterinary steroids because they are believed to be cheaper, more anabolically effective, and legitimately produced.

There are two areas of special concern. First, persons injecting steroids are prone to all of the hazards of needle-sharing, both localized and systemic. Needle-sharing is denied by competitive athletes, but may occur in inner-city gyms. The second area of concern is violence. The popular media and the scientific community increasingly report incidents of acute psychiatric effects associated with use of AAS, including hypomania, schizophrenic and psychotic episodes, homicides, and other acts of violence. In self-reporting, users claim that aggression was considerably heightened through the use of steroids, but heightened aggression has not been confirmed by standardized psychological inventories. Research documents increased aggressiveness, but most users see this as both a benefit and an adverse consequence.

Speaker: Kirk Brower, M.D.

AS use is not confined to the elite athlete. One study found that 38 percent of users started before age 16. With other drugs, early age of onset tends to correlate with later problematic use, but it is not known if this holds true for AS.

The University of Michigan Weight Lifter Survey, a self-administered questionnaire, was distributed at university and private gymnasiums. The sample consisted of young, single, white, employed males with 2 years of college education. Forty-nine male users were found. The subjects had been using for about 2 years and were combining a mean of 2.8 drugs at one time; most were combining injectable and oral forms. Only one-fifth used orals only.

The self-reported doses of users were 3 to 26 times the therapeutic dose. Because many were combining drugs, and many were using veterinary drugs, the actual dose is unknown but is estimated at 10 to 100 times the therapeutic dose.

DSM-III-R criteria were used to establish dependency. Withdrawal symptoms were reported by 84 percent of the subjects; the mean number of symptoms was 2.8. Fifty-seven percent reported three or more symptoms, which is consistent with a diagnosis of dependency. Withdrawal symptoms tended to be depressive. More than one-half reported a desire to take more of the drugs. Users can become suicidal during withdrawal.

The natural history of AS use is no use, experimental use, regular or purposeful use, and addictive use. Different risk factors and predictors may push the process and different intervention points. Among psychological variables, dependent users did not feel that they were big enough, although everyone was getting bigger. Aggressive symptoms were reported by dependent users but were not correlated with dosage. Some users reported delayed euphoria, but euphoria by itself is not a mechanism of dependence. Half of the dependent users did not report euphoria.

Clinical reports and survey data suggest that patterns of illicit steroid use can lead to dependence. However, no dependence ever has been reported for therapeutic use. Dependent users reported more aggressiveness, depressive withdrawal, and high alcohol use. Therefore, prevention and treatment efforts may need to address body image, alcohol abuse, aggressive symptoms, and suicidal depression.

5.18 Drug Abuse and AIDS: Interventions in African American Populations

Moderator: Edward Morgan

Speaker: A. Cornelius Baker

HIV and substance abuse are intertwined and must be discussed as one. Although 28 percent of reported AIDS cases are directly or indirectly attributable to IV drug use, only 0.5 percent of participants in clinical trials currently use drugs, and only 10 percent have a history of IV drug use. Substance abuse care services are integral to any care program for HIV-infected persons. The disproportionate number of blacks and Hispanics among diagnosed AIDS patients is expected to increase, in part because of the increase in number of cases among IV drug users.

Women with AIDS account for 9 percent of the reported AIDS cases, and AIDS is among the 10 leading causes of death among women aged 15 to 44. There are an estimated 5,000 to 10,000 children infected with HIV due to perinatal transmission. The incidence of drug-exposed infants is increasing dramatically. Data from a 1988 national survey indicate that approximately 375,000 drug-affected infants are born annually.

PHS has targeted several initiatives to address HIV and substance abuse, including a nationwide outreach program directed toward IV drug users not in treatment and their sexual partners. Current NIDA prevention grants include studies

focused on the interaction of cultural factors and the promotion or prevention of drug use.

The National AIDS Demonstration Research Program operates at more than 60 sites. Individuals at risk for AIDS through illicit drug use are sought out, educated regarding AIDS risk reduction, and encouraged to change risk behaviors. The target is out-of-treatment IV drug users and their sexual partners. The goal is to reduce the level of AIDS-related risk taking, thereby reducing the spread within the community.

NIDA currently is sponsoring an ethnic conference initiative to increase awareness and provide the most effective tools and strategies to address substance abuse and AIDS at the local level. The conferences are targeted to people with direct and immediate access to the target group, such as clergy, police, hairdressers, and other community members.

OSAP provides support for alcohol and other drug abuse prevention programs. Non-AIDS programs impact AIDS by reducing the demand for alcohol and other drugs. OTI does not have a separate AIDS budget but is funding treatment programs with AIDS components. PHS is targeting inclusion of AIDS prevention services within all alcohol and drug abuse prevention and family planning programs.

The level of services and involvement in the community has a major impact on health care of patients as well as on the fostering of sympathetic care for those at risk. Local services should be examined, and the role of the clergy should be explored. Currently PHS is working with religious communities and other community groups to develop care and education programs.

Speaker: Lawrence S. Brown, Jr., M.D., M.P.H.

Of cases associated with AIDS due to heterosexual transmission, more than 70 percent are attributable to sex with a drug user. Most of the AIDS epidemic has focused on IV drug use, but other drugs also are associated with HIV transmission. While AIDS and AIDS cases have been the pivotal points discussed during the epidemic, AIDS also is clearly associated with other increased medical consequences, particularly tuberculosis and syphilis. HIV is not just a medical issue; it also raises other social and economic issues. Many feel that the HIV epidemic has exposed preexisting problems in the health care delivery system.

Four types of approaches are used to reduce needle-related HIV transmission. Providing education and information, sterilizing materials, sterile needles, and/or drug treatment to the target group can reduce the risk of needle-related HIV transmission.

The first approach involves providing education and information which must be culturally sensitive and placed within the communities targeted. The target group may be receiving the information, but it is important that it be translated into effective behavioral change.

The second approach involves providing sterilizing materials such as bleach, which is inexpensive and effective in a laboratory setting, but may not be so in the community. Behavior depends on the withdrawal stage of the user, and those using sterilizing materials may not be in serious stages of withdrawal. Also, the focus is on needles and syringes, but heterosexual transmission also is a factor. Even though a drug is used sterilely, the user may participate in unsafe sex.

Providing sterile needles, the third method, appears to have had some benefit, particularly in Europe, but little is known about long-term benefits. Providing sterile needles also may be contrary to drug rehabilitation policy. Heterosexual transmission again is not addressed.

The fourth way to reduce needle-related HIV transmission is drug treatment, which is variable in quantity and sometimes of unknown quality. It is possible that if a sufficient number of chemically dependent persons are effectively engaged in treatment, they will be removed as substance abuse recruiters, thus reducing associated HIV transmission.

There is a question as to whether research being done adequately includes persons who are chemically dependent. Blacks desire research, but should be included not only as subjects, but also as co-investigators, at the least. Researchers must realize that effective research requires a working relationship between clinicians and investigators. It is important to know that the services being provided are appropriate.

The AIDS and drug abuse relationship provides an opportunity to significantly reduce a considerable portion of HIV-associated morbidity. It also allows consideration of more effective and rational approaches to drug abuse in the community. If we do not consider this, we will continue to talk about the problem of cocaine and subliminally continue to accept the consequences of alcohol.

5.19 Drug Abuse and AIDS: Interventions in Hispanic American Populations

Moderator: Alberto Mata, Ph.D.

Speaker: Antonio Estrada, Ph.D.

The Hispanic IV drug user community in southern Arizona has a high level of AIDS knowledge, but also a high number of misconceptions to be clarified. The following findings regarding this high-risk group reflect the need for intervention:

- More than one-third were in a high-risk category with respect to needle use. Fifty-seven percent shared needles with three or more persons. Only 16 percent report always using clean needles.
- Nineteen percent of the population is at risk from a sexual risk index aspect. One-half had three or more partners in the past 6 months. Of those with one partner, 77 percent never use condoms. Of those with multiple partners, 73 percent never use condoms.
- Sixty-two percent were never enrolled in drug detoxification; 77 percent were never in a residential treatment program; 87 percent were never in a jail treatment program; and 88 percent were never in an outpatient, drug-free program. This high-risk population is not getting into drug treatment.

Health and mental health providers can intervene effectively by recognizing how their own values, attitudes, and anxieties impact treatment approaches and by

accepting substance abuse as a problem that can be ameliorated by treatment intervention. Care providers need to be knowledgeable about the resources in the community. These resources can assist care providers in making assessments and referrals and in developing effective intervention strategies.

The model for the intervention program has five stages. The first stage is assessment, in which one looks at demographic characteristics, situational factors, cultural acceptance, and behaviors. Saliency, or the seriousness of the perception that the disease will impact on their own well-being, is the second stage. Decision-making, the third stage, sets up a potential for taking action, with the individual adopting all, some, or one of the behavioral changes. In the fourth stage, triggering or enabling, barriers and cues to action are examined. The fifth stage is preventive action, which looks for reduction of sexual risk behaviors.

The Community Outreach Project on AIDS in Southern Arizona (COPASA) is trying to give people skills to change behavior and to incorporate these skills in their lifestyles. COPASA also is incorporating what is being learned into the curriculum at the University of Arizona College of Medicine. The knowledge also is being included in the training of mental health and substance abuse counselors to discover the most important point to intervene to maximize behavioral change.

Speaker: Hortensia Amaro, Ph.D.

Early intervention with minority women is needed. The most common route of HIV transmission among women is either IV drug use or heterosexual transmission. Women are more at risk because they exchange sex for drugs out of a cocaine or crack cocaine habit. Because the women are exchanging sex for drugs or are themselves addicted, they often do not use condoms and so become pregnant. Addicted women often do not receive prenatal care. Rather than providing an opportunity, the service structure presents obstacles to pregnant women. First, a great fear of women who consider entering drug treatment or prenatal care is that their children will be taken from them. Second, the move toward criminal prosecution for drug use during pregnancy also makes it difficult for women to seek treatment.

The program goals are as follows: (1) to reach pregnant women in the target population of IV drug users, partners of drug users, and those exchanging sex for drugs; (2) to gather data on their sexual behaviors and assess their knowledge of AIDS/HIV and related factors; (3) to assess the rate of HIV infection in the population; (4) to engage women in prevention activities; (5) to provide needed support to facilitate access to prenatal care, medical care, and drug treatment; and (6) to evaluate the effectiveness of the intervention in reducing risk behavior.

The guiding principles of the program are that an active community-based outreach effort is needed to be effective, women indigenous to the target population are best suited to conduct outreach efforts, women must be assisted in addressing their most pressing and immediate needs, and the program must convey respect and a positive sense of self to the participants.

The education curriculum is based on a learner-focused approach. The learner is seen as the one who knows best what is needed. The learner's experiences are

used as the basis for forming questions about AIDS/HIV, and the issues come out through the women.

The program has a street-level outreach component with six workers, mostly women in recovery. Recruitment is done through street and institutional outreach. The program developed collaborative arrangements with shelters, treatment programs, and other community-based organizations. The intervention program includes referral and advocacy, education groups, and individual or couple counseling.

Speaker: Richard Cervantes, Ph.D.

In 1989 about 36,000 diagnosed cases of AIDS were reported to the Centers for Disease Control. The highest proportion of cases was among blacks and Hispanics. One-half of the reported cases involved ethnic minorities. A variety of high-risk behaviors is attributed to transmission of the virus, including needle-sharing and unprotected sex. Among Hispanics, the most common transmission route is heterosexual contact, followed by needle-sharing.

A retrospective case review of HIV-infected males who came for treatment at a Hollywood, California, clinic included 80 Hispanic and 82 non-Hispanic white males who were of about the same socioeconomic status. The data showed the following differences between the two groups of males:

- Thirty-six percent of the Hispanics and 52 percent of the non-Hispanics were insured;
- Fifty-one percent of the Hispanics came because of acute medical problems related to their HIV status, but 76 percent of the non-Hispanics came for emotional counseling;
- About 36 percent of the Hispanics and 27 percent of the non-Hispanics had been treated for syphilis; and
- Thirty-nine percent of the Hispanics and 50 percent of the non-Hispanics had had gonorrhea at one time.

Regarding lifetime use of alcohol, marijuana, cocaine, and IV drug use, the data are as follows for Hispanic and non-Hispanic males:

- Lifetime alcohol use was 75 percent among Hispanics and 88 percent among non-Hispanics;
- Lifetime marijuana use was 41 percent among Hispanics and 76 percent among non-Hispanics;
- Lifetime cocaine use was 24 percent among Hispanics and 57 percent among non-Hispanics; and
- Two percent of Hispanics and 12 percent of non-Hispanics were IV drug users.

The data regarding the sexual preferences of the two groups of males are as follows:

- Seventy-eight percent of Hispanics and 77 percent of non-Hispanics were exclusively homosexual;
- Twelve percent of Hispanics and 16 percent of non-Hispanics were primarily homosexual;
- Seventy-five percent of Hispanics and 91 percent of non-Hispanics were sexually active; and
- Thirty-four percent of the sexually active Hispanics and 20 percent of sexually active non-Hispanics only sometimes or never practiced safe sex.

Blacks and Hispanics are overrepresented in the number of AIDS cases. Continuing AIDS education, particularly for the non-English speaking, is critical. From a treatment population standpoint, psychological treatment and counseling needs to be provided with respect to reduction of risk behaviors. When talking about Hispanics in terms of treatment, issues such as family support loss should be considered, along with the issues that all HIV-infected individuals experience.

5.20 Drug Abuse and AIDS: Interventions in Native American Populations

Moderator: Clifton Mitchell, B.S.

Speaker: Ron Rowell, M.P.H.

There have been many major epidemics among Native Americans: smallpox has been the biggest killer. In the late 17th century alcohol was introduced to Native Americans and quickly became a major problem. Native American leaders pleaded with colonial leaders to curb the distribution of alcohol. The Native American population declined from more than 5 million to about 250,000 by 1900 due to epidemics. The 1980 census showed that there are 1.37 million Native Americans.

The current health status of Indians is lower than that of the U.S. population as a whole on every health indicator. Thirty-seven percent of Native Americans die before the age of 45, primarily due to preventable causes related to substance abuse. Four of the top 10 causes of early death are directly related to substance abuse, and the other 6 are at least indirectly related. About one-half of children born on reservations suffer from a fetal alcohol effect, and one in four is born to a woman 18 years of age or younger. Sexually transmitted disease (STD) rates are twice as high as those of the U.S. population as a whole.

Preliminary findings from a current study indicate that the HIV-infection rate among American Indian/Alaska Native women is much higher than in any comparable study of other rural women. The virus is well-established in the American Indian/Alaska Native population, but it is still possible to prevent an AIDS pandemic by immediate, widespread prevention education.

An underlying behavioral health problem is at the root of major health problems and HIV. HIV can be seen as a symptom rather than as a disease. Substance abuse is seen as the underlying problem at the root of the AIDS and STD epidemics. HIV offers an opportunity to address this problem from a new perspective. HIV is just another epidemic in a long series of epidemics that threaten the survival of Indians. To address AIDS, it is necessary to change substance-abusing behavior. By creating change in substance-abusing behavior, the major health problems faced also will be addressed. While this can be done, it will take time.

Speaker: Kathy Ideus, Ed.D.

Due to their extremely rural environment, Alaska Natives live a subsistence lifestyle. Approaching treatment and prevention within an outdoor context is compatible with the spiritual cultures in Alaska and with actual everyday lifestyle. This outdoor or camp idea was infused with elements from other programs.

Recovery Camps, also known as Spirit Camps, became the vehicle identified by many communities as their choice of process. They incorporate subsistence living and the need for a community or collective approach as a major theme rather than attempt to deal with the problem from an individualistic perspective. When people are seriously dependent on subsistence living for their physical survival, the notion of dealing with problems in an individualized way is antagonistic to the local culture. A setting evolved with treatment, education, prevention, and holistic health approaches.

The community decides on a setting that is appropriate for it. There are seven cultural groups in Alaska, and the camps take on the flavor of the sponsoring culture. The focus of the camps was originally generic, but is now more specific.

Spirit Camps focus on native spiritual healing approaches. There is a mixed population composed of children, parents, and elders. A holistic therapeutic process operating on a number of levels, organized around spiritual themes, is used. A primary vehicle is a daily "talking circle" facilitated by a person of stature. The Spirit Camp is an attempt to blend primary cultural themes with known technologies from other cultures in a setting compatible with the community's lifestyle.

An Urban Camp is being developed in Anchorage, adapting to the cycle of events in urban Indian communities.

Speaker: Terry Tafoya, Ph.D.

The Western European mental map is very different from that of the Asian/Pacific Islander, the Native American, and the African. A traditional story, similar to that of the European story of Hansel and Gretel, illustrates different concepts of Europeans and Native Americans as perceived by one American Indian tribe. In Hansel and Gretel, the witch dies, but in the Indian story, the witch is transformed. Even before Christianity, there was the Western idea that there is a battle between good and evil, and good must win. This is the framework that the general population holds about stamping out drug abuse and AIDS.

In other cultures, including Native American, there is the idea of cycles. Evil is not something to be destroyed. If you behave in an appropriate way, evil becomes

something you can live with on a day-to-day basis. This may be a more realistic approach to deal with substance abuse as well as AIDS prevention among Native Americans.

People go through several stages of development. In the *orphan* stage, people realize that they are small, unimportant, and need help. People in recovery or with HIV need specific guidance or they will not accept the therapist. In the *wanderer* stage, people leave the community to discover their own abilities, resources, and talents. A comprehensive treatment system interferes with individuals' personal growth issues. In the *martyr* stage, personal needs are given up to meet the needs of others. In the *warrior* stage, individuals must slay the dragon, i.e., eliminate the problem. If the dragon cannot be slain, it must be converted, and if not converted, legislated out of existence. The warrior categorizes things as right or wrong, tolerable or intolerable. Eventually, black or white decisions cannot always be made, and the person gains context. Other things can then be found to do with the dragon. In the *magician* or *shaman* stage, the interconnectedness of all things can be seen. There is a shift to other ways of looking at problems; alternatives are recognized.

People in each of these stages will need a different kind of intervention and treatment. If only one technique is used, only a small part of the population will respond well. Most will respond adequately. The technique will be the absolute worst choice for a small part of the population. Therefore, a variety of approaches is needed.

Speaker: Eva Smith, M.D.

When dealing with Native Americans, you must think of the cultural diversity of 500 communities and, thus, the diversity of prevalence of disease. One community may have a greater problem with one particular substance than another. There is a Native American community in California with an IV methamphetamine problem. This culture is proud of its strong babies, but the signs of strength are really seizures resulting from maternal drug use. The community lives in the largest marijuana growing area of the United States, but the tribe is trading marijuana for money for IV methamphetamine. The concept of gateway drugs is out because first exposure to drugs is to IV methamphetamine.

In 1985 a meeting of substance abuse professionals working in Indian communities was held. More than 200 recommendations were made in 5 categories: services for women, services for youths, accessibility of treatment, establishing minimum standards for staff qualifications, and addressing drugs other than alcohol.

Changes in the area of substance abuse treatment in the last 5 years have included the following:

- Requiring all counselors to go through various levels of certification in alcohol and substance abuse;
- Funding a number of counselors for Indian urban clinics;
- Establishing a methadone maintenance program;

- Educating doctors and nurses on their role in primary prevention, screening, referral, and relapse prevention; and
- Developing adolescent residential treatment centers.

Other substance abuse treatment topics that need to be addressed include the following:

- The need for more research and interagency agreements;
- Revision of the current alcohol-oriented data base;
- Becoming open to pharmacologic interventions such as methadone maintenance, nicotine substitutes, and new medications for cocaine craving;
- The need to improve treatment availability;
- The increasing recognition that AIDS or substance abuse cannot be talked about without talking about women's health issues; and
- Expanded outreach.

5.21 Drug Abuse and AIDS: Interventions in Asian American Populations

Moderator: Robin Kawazoe

Speaker: David Chen, M.P.A., M.A.

The west coast will continue to be a population center for Asians, but other States are experiencing tremendous Asian population growth. Nationally, Asian Americans as a group are the fastest growing among all ethnic groups. There are more than 60 disparate ethnic subgroups with differing nationalities, languages, cultures, religions, customs, and histories.

Issues regarding substance abuse risk factors include self-esteem, poor family relationships, stress, lack of value attachment, negative peer pressure, and antisocial attitudes and behaviors. With Asian Americans there are other cultural and situational variables, including outlook on children and traditions (e.g., respect of elders and attitudes and beliefs toward privacy, sex, and approaches to seeking help). Approaches to seeking help are very different. There are varying degrees of attachment to the native culture, which explains conflict with the dominant culture. Individuals have conflicting mainstream and community roles, and there are economic factors for new immigrants.

Data in terms of prevalence of use are sorely lacking. Until recently, the Asian population was so few in number that there was a lack of justification for survey research or attempts to focus on the issues.

One of the most important approaches in prevention intervention starts with the family. In working with immigrant families, always start with the case management approach. Because immigrants typically lack information, emphasis is placed on

facilitating learning, especially with written material. With the number of Asians increasing, the amount of translated material has increased, but translated material often lacks cultural relevance.

The family approach starts with establishing a level of trust. There is a denial stage; a rapport must be established so that people will share what is going on in the family; the family must deal with the pain of addiction and the infringement on the family's privacy. Seeking help is not one person's decision.

Asians do not want to deal with the issue of AIDS and substance abuse. Community education and prevention are extremely difficult. Often, the best way is to seek help outside of the community. Educational approaches also are critical to effective intervention.

Speaker: Sam Akinaka, M.R.A.

A sociological problem is only a problem when it is so considered by the community. It will be increasingly important to encourage and become involved with grassroots groups and other networks to help educate the community and politicians about the AIDS and substance abuse epidemics.

Asians are concerned about keeping things within the family. They learn at a young age to respect elders, not to make waves, and to trust and believe in the political power structure. There is a belief that Asians do not have drug problems, mental health problems, or AIDS problems. Studies show that non-Asians know about AIDS, but that a lot of misconceptions exist among Asians about AIDS. Most do not use condoms, are not planning to be HIV tested, and do not believe that they are really at risk for exposure to AIDS.

The Asian Pacific AIDS Coalition (APAC) started as a coalition of concerned people with the objectives of advocacy and grassroots development. APAC does not intend to apply for funds that may interfere with direct providers.

APAC activity includes training new volunteers to work with Asians with AIDS or HIV; providing small, easy-to-get grants for emergency needs; providing grants to stimulate grassroots activities; and employing a part-time consultant to attend meetings not currently attended by APAC and to help write grant proposals and lobby.

The cultural denial of substance abuse among Asians is heavy. However, studies show that substance abuse does exist. One study of 123 Asian people under 18 showed that 94.9 percent had used beer; 91.4 percent, cigarettes; 79.7 percent, marijuana; and 55.9 percent, cocaine.

The next area of concentration to become involved in is early intervention. On-the-job training of Asians for the substance abuse field should be encouraged. Outreach and advertising to the Asian community is very important for early intervention and referrals for substance abuse and AIDS.

Speaker: Terry S. Gock, Ph.D., M.P.A.

The Asian Pacific Planning Council (APCON) is a consortium of more than 75 agencies and individuals that addresses health, mental health, social service, and cultural concerns of the Asian Pacific populations in the greater Los Angeles area.

It is a policy-advocating and service-coordinating body for the Asian Pacific community. APCON remains a grassroots organization in terms of operation.

In 1987 APCON established an AIDS task force, which became the HIV/AIDS Committee of APCON in 1990. Data show that the primary mode of transmission for Asian Pacific AIDS cases was sexual contact. Many of the people were first generation and not active in the mainstream nor in the Asian Pacific gay community. Involvement of the mainstream was essential. However, acknowledging sexuality and homosexuality and discussing issues of health, illness, and death are all taboos in the Asian Pacific community. Thus, APCON seemed to be the way to coordinate the HIV effort and confront the taboos. It was unrealistic to expect the mainstream to embrace HIV-related issues, and there were many issues of trust and control in establishing the task force.

Unlike in other ethnic communities, IV drug use was and is quite low as a mode of HIV transmission in the Asian Pacific community. However, APCON is cognizant of the disinhibiting effect of substance use and abuse which has led to unsafe and unprotected sexual behavior and increased risk of HIV infection. Therefore, addressing substance abuse concerns must have high priority within HIV prevention efforts.

APCON recognized early that AIDS is not only a medical issue, but also has psychological, emotional, spiritual, social, ethnic, and cultural implications. At the organizational level, efforts must rest not only on the AIDS task force and substance abuse committee, but also must involve other relevant APCON committees.

The HIV/AIDS Committee of APCON is at an exciting developmental juncture. Originally, it was reactive, but it has become a more integrated part of the APCON family and agenda. The task force will expend more energy toward advocacy efforts for a more data-based, sensitive, and effective HIV-related prevention and treatment community as well as push for research agendas relative to the Asian Pacific community.

5.22 Drug Abuse Training Resources

Moderator: Edward Morgan

Speaker: Robbie Hayes, M.S.

Teaching is the transfer of information for the purpose of increasing a person's knowledge. Training is an instructional process designed to facilitate changes in a person's knowledge, attitudes, and skill levels and is intended to satisfy an immediate need. In training, it is important to look at the interactive process and at what the person knows, feels, thinks, and is doing.

Design is a six-step process that involves conducting a needs assessment, determining training objectives, looking at the participant population's characteristics, selecting a strategy for the participants, examining the training environment, preparing the training team, and evaluating the training.

All NIDA courses are designed with a trainer's manual and a participant's manual. The trainer's manual is designed so that a qualified trainer at the site can

substitute for NIDA trainers if necessary. The courses also are designed to facilitate scrutiny by accrediting organizations so that participants can earn credits and trainers can become certified.

The courses designed include a NIDA series centered around HIV and AIDS education and prevention. The courses are designed in specific short-term modules to permit sites to use selected parts. Other courses address methadone treatment strategies, prevention of AIDS among female sexual partners of IV drug users, a series on AIDS outreach for experienced and new field workers, training of trainers, assessment interviewing for treatment planning, drugs in perspective, and basic management skills.

Speaker: Delora Shedrick, M.S.W.

The range of adolescent emotions must be considered when designing curricula for adolescents. NIDA funded a unique adolescent-oriented training program known as AIDS High Risk Adolescent Prevention (AIDS HRap) Training; it provides training for professionals working with adolescents to improve their ability to work with the population. This program is modularized, and each part stands alone. A second effort is the Peer Education Project, which uses adolescent peers as trainers. These peers are accompanied by experienced trainers. A third effort is providing technical assistance to organizations seeking to set up a training program. In training adolescents, remember that they are still children even when their behavior belies that fact. It also is important to recognize your own feelings and perceptions, which may inadvertently serve as barriers to good communication with adolescents.

Speaker: Roy Walker, M.B.A.

"AIDS Prevention Training of Trainers for African Americans" is a course addressing prevention among African Americans. Course development started in 1987, and pilot testing began in 1988. The disproportionate involvement of African Americans with AIDS/HIV infection suggests that courses addressing prevention or something of this sort are needed to try to prevent the spread of the disease.

The course has six modules. The first module presents the big picture and states why the course is needed. The target population is African American gay IV drug users who have AIDS, so there is a particular set of concerns to deal with. The second module presents basic medical facts and myths as they impact on African Americans and discusses how to anticipate and deal with related issues. The third module addresses culturally sensitive risk behavior awareness and assessment. The fourth deals with testing, a controversial and sensitive area for African Americans due to their level of trust. The fifth module addresses counseling from an African American cultural perspective, and the last module deals with legal and ethical/moral issues.

The basic approach is to train trainers so that they can appreciate the need for a course on AIDS among African Americans.

Speaker: Nancy Rosenshine, B.A.

"Preventing AIDS Among Female Sexual Partners of Injection Drug Users" is a 12-module training curriculum based on an AIDS prevention model for reaching women at risk. Prior to the training, reading material is sent to the participants as an introduction. It is a 5-day program. The first day is spent learning about the participants and tailoring the curriculum for their particular needs. The curriculum is delivered over the remaining 4 days.

The curriculum modules consist of the following: a slide presentation that further identifies and describes the women introduced in the reading material; health and survival; sexuality, relationships, and codependency; women in addictions; violence and victimization; strategies for recruiting, outreach, and community networking to meet common needs; motivating women's entry into the program; intervention elements such as risk assessment, HIV-antibody testing and counseling, and risk reduction; and supporting behavioral change. The last module is an action planning session.

Speaker: Leonard Epstein

The overall role of OSAP's National Training System (NTS) is to develop and deliver alcohol and other drug prevention training programs nationwide and to offer general support to OSAP-sponsored programs. NTS seeks to increase recognition, prevention, and early intervention of alcohol and drug-related problems through development of training initiatives directed at groups with access to at-risk populations. The elements of NTS services include training of trainers, materials development, and training assistance.

The NTS planning approach includes active involvement of task forces to help define barriers to overcome; identify training resources, opportunities, and gaps; and serve as an ongoing resource to NTS. The various task forces include NTS expert panels, physicians, persons with disabilities, nurses, religious leaders, prevention professionals, mental health professionals, criminal justice professionals, counselors, and parents and youth leaders.

One program trains trainers in States to support and strengthen State alcohol and other drug prevention and training capacities.

OSAP's Community Partnership Training Project is designed for recipients of OSAP Community Partnership Demonstration grants. The trainees include grant managers and staff, local officials, and grassroots community members. Training topics include strategic planning, coalition development and maintenance, community prevention strategies, networking, funding, and program evaluation.

The NTS data base, OSAP's Prevention Training Information System, was developed to provide community, State, and national access to trainers, training materials, and training needs. Users include program workers, health and social service professionals, educators and trainers, and Federal and State officials.

Future NTS activities include networking with private and public organizations and government agencies, working to institutionalize training programs, offering education credit incentives, collaborating with other training organizations, promoting

alcohol and other drug training, and providing training followup. In all of OSAP's training activities, evaluation is of paramount concern.

5.23 Alcohol and Drug Treatment Data Collection Systems

Moderator: Ann Blanken, B.A.

Speaker: Bill Butynski, Ph.D.

The State Alcohol and Drug Abuse Profile (SADAP) was developed through the collaborative efforts of State and Federal agencies. Financial and client data are collected for programs which received at least some funds administered by the State Alcohol and Drug Agency. Forty-nine States, the District of Columbia, Guam, and Puerto Rico participated in a 1989 study. Some of the study's findings are presented below.

Total alcohol and drug expenditures for Fiscal Year 1989 were $2.4 billion, with the largest part coming from State agencies. About 77 percent of the money was spent on treatment. There were increases in funds from all sources between 1985 and 1989. Most treatment programs, 62.4 percent, combine alcohol and drug treatment. Most of the States funded more than one-half of the treatment units in each State. Alcohol treatment admissions for 1989 were about double those of drug admissions.

Admissions for a primary problem with cocaine increased nearly 436 percent between 1985 and 1981, while marijuana/hashish admissions increased 67 percent, and heroin admissions increased 41 percent. The estimated number of IV drug abusers was 1.5 million (based on 38 States, the District of Columbia, Guam, and Puerto Rico), but only 20 percent were admitted to treatment.

Speaker: Betsy Slay

The National Drug and Alcohol Treatment Unit Survey (NDATUS) grew out of an effort started in 1973. Its primary purpose is to provide aggregate national-, regional-, State-, and program-level information about the location, scope, and characteristics of drug abuse and alcoholism treatment and prevention services.

NDATUS provides identification and descriptive information, including type of service provided, client capacity and census, staffing, and funding amounts and sources. Questions have been added regarding pregnancy, users with HIV, urbanicity of clients served, and waiting lists. Users of the results include Federal, State, and local agencies, researchers, and the public. NDATUS also supplies the referral information for the NIDA hotline. Products produced include a national directory of alcohol and drug abuse treatment programs, a Main Findings report, public use data files, and various reports.

The 1989 NDATUS survey results indicate that more units are combining drug and alcohol programs, the greatest number of clients are in outpatient programs, and age distribution of clients shows the greatest number are aged 21 to 44, with 25 to 34 being the single largest group.

Speaker: Geraldine Scott-Pinkney, B.S.

The purpose of the Client Data System (CDS) project is to develop a national data base with information on persons admitted to treatment for the abuse of alcohol and other drug problems. The data base is being developed jointly by NIDA and NIAAA in collaboration with the States in response to requirements of the Anti-Drug Abuse Act of 1988.

The reporting criteria are as follows:

- All programs receiving any State alcohol or drug agency funds for treatment services must report data;
- Data must be reported for all clients admitted to the program, regardless of source of funding;
- The initial admission and each change in service must be reported;
- At the State's option, reporting may be by programs or clinics or at the service level; and
- Reporting of any part of the minimum data set for codependants is optional.

The minimum data set developed for reporting to the CDS includes provider and client identifier; date of admission; number of prior treatments; principal source of referral; age, sex, race, and ethnicity; employment status; substance problems codes; usual route of administration; frequency of use; age at first use; and services. These items will be extracted from each State's CDS and submitted by States to NIDA and NIAAA.

Provisions also have been made for optional data items which include detailed drug codes, substance abuse diagnosis, psychiatric problems in addition to an alcohol or drug problem, pregnancy at time of admission, living arrangements, primary source of support, and time waiting to enter treatment.

CDS implementation is underway, with partial 1990 data from about 10 States. Full implementation with all States is expected by the end of 1991.

Speaker: Frank Tims, Ph.D.

The Drug Abuse Treatment Outcome Survey (DATOS) is the third major national evaluation of drug abuse treatment. Earlier evaluations include the Drug Abuse Reporting Program (DARP) and the Treatment Outcome Prospective Study (TOPS). DARP, conducted on clients entering treatment between 1969 and 1973, established typologies of treatment and clients, demonstrated the effectiveness of drug abuse treatment, and provided important insights into the natural history of drug abuse among a treated population.

TOPS sought to characterize treatment populations, drug abuse patterns, during-treatment behaviors, treatment services, and outcomes in the population entering drug treatment between 1979 and 1981. In comparison to DARP, clients entering publicly-funded treatment in TOPS were more likely to be female, white, older, and (particularly for methadone maintenance) returning to treatment rather than entering

funded treatment in TOPS were more likely to be female, white, older, and (particularly for methadone maintenance) returning to treatment rather than entering treatment for the first time. The TOPS clients were much more likely to engage in multiple drug abuse and less likely to abuse opioids daily.

DATOS is designed as an indepth study of the outcomes of treatment programs—the client population, treatment structure and process, and the relationship of client characteristics and the treatment process to outcome. It is a multiyear, longitudinal, cohort-based study of 20,000 adult clients and covers 50 treatment programs in 10 to 12 cities. Treatment programs to be sampled include four broad categories: methadone maintenance, short-term residential treatment, long-term residential treatment, and outpatient drug-free treatment. Clients are interviewed at intake and given a clinical assessment battery which is repeated 30 days later.

Outcomes will be compared for clients entering treatment with varied patterns of drug abuse and levels of psychosocial impairment, and experiencing varied types and durations of treatment. DATOS will investigate which treatments and services are available to the client, how they are delivered, and how they are related to outcome measures, such as drug use, criminality, and employment. This aspect of DATOS should have important implications in determining levels of service needs.

Followup interviews of 4,500 will be conducted 3 months and 1 year after termination of treatment. The followup sample will represent specific strata of drug use patterns, levels of impairment, and types of treatment. Outcome criteria will include drug and alcohol use, employment or productive activity, criminality measures, health and psychiatric comorbidity, and treatment readmissions.

DATOS is envisioned as an ongoing system for evaluating treatment. The data system is designed to allow additional studies to be added or the sample to be expanded. A number of studies are planned around DATOS. The first of these will be an adolescent DATOS, which will study a cohort of 6,000 adolescents in drug treatment.

5.24 Community-Based Epidemiology Workgroups

Moderator: Nicholas J. Kozel, M.S.

Speaker: Nicholas J. Kozel, M.S.

A community consists of a group of individuals with a common interest. In its most basic form, it is a small group, such as a family or neighborhood, but can expand to national and international levels. In the drug abuse field, similar definitions apply. This session will discuss surveillance programs that focus on measuring the extent of drug abuse, especially through indirect indicators, which are based largely on data related to the consequences of drug abuse. The aim of a community-based drug abuse program is to establish data bases and ongoing programs of data collection and analysis at the community level and to involve community-based researchers. The need for these programs comes from the growing recognition that drug abuse problems emerge, have the greatest impact, and are

Speaker: James N. Hall

Measures of drug use prevalence from national surveys are most helpful in determining the totality of the problem but are not useful in extrapolating to the local level. Determining community patterns is important for planning services and for facilitating funding. A community-based Drug Epidemiology Network (DEN) is a local committee that serves to gather, exchange, and report findings about consequences within the community.

National surveys help identify national trends, but at the local level, the focus should be on the epidemic's intensity. A DEN is ideally composed of representatives from the community institutions, such as hospital emergency rooms, medical examiners' offices, law enforcement agencies, and other organizations impacted by the problem and capable of measuring the epidemic's intensity. These institutions are already gathering data for their own purposes, so low cost data collection is available. Using data from a variety of institutions may confirm patterns and identify exceptions.

Information gathering begins by having agency representatives meet as a group to develop a system for measuring local drug abuse patterns and trends. Representatives return to their agencies to identify available, useful data. The group then meets again to review reports on the impact of substance abuse within each agency. From this exchange, a report is developed and reviewed by the entire DEN membership to reflect all of the agencies' perceptions.

An example of a DEN report from Miami, Florida, includes some cocaine-related indicators, such as cocaine-induced deaths, cocaine-related deaths, local emergency room mentions of cocaine, criminal drug cases, and deaths of newborn cocaine-exposed infants. DEN helps identify emerging issues, such as increased heroin use, increased toxicity, and AIDS-related issues. A local DEN may share data with other DENs to form regional and statewide DENs.

DEN data are extremely helpful for public policymakers who must justify expenditures of limited resources and determine policy. DEN data are vital for local programs that seek grants by demonstrating project needs and for developing project impact measures.

Speaker: Blanche Frank, Ph.D.

New York State uses three major, complementary strategies to assess the drug abuse problem—direct surveys, indirect indicator monitoring, and street ethnography. There is a direct telephone survey of adults which also includes persons who are essentially homeless. Indirect indicators monitored include police reports, health department reports, and emergency room data. A mini-Drug Abuse Warning Network (DAWN) project was piloted in three upstate counties. Street ethnography employs street workers who are former drug abusers. They monitor drug areas and neighborhoods. Because these street workers learned early what was happening in the community, they were the first to report on the appearance of crack cocaine.

The surveys used include a telephone survey and a self-administered school survey. The telephone survey provides gross estimates of drug use by areas of the State. For example, it shows that New York City leads in percentage of users of all

substances except marijuana. A school survey uses a self-administered questionnaire in the 5th through 12th grades in every region of the State. The student survey indicates that the level of substance use among students does not vary substantially across the different regions.

Comparing drug-related events by area and by population in New York City shows the relative drug abuse problem throughout the city. For example, the South Bronx has 10 percent of the city's population but experiences a much greater percentage of drug-related events in all categories. Mini-DAWN reports showed unexpected findings in upstate New York, including finding that injection is the mode of cocaine use and that men outnumber women in Valium-related episodes.

Annual epidemiology workshops are held at four locations around the State. County representatives and local experts are invited. Information is shared in both directions, creating a powerful network. For example, one group designed an instrument seeking detailed information on patterns and added a series of open-ended questions to help identify other patterns and other knowledgeable persons.

Speaker: Elizabeth Lambert, M.S.

To reach the homeless and other hard-to-reach population groups, NIDA has initiated the Washington, D.C., Metropolitan Area Drug Study (DC MADS). This is a comprehensive epidemiologic effort to study prevalence, incidence, and adverse consequences of drug abuse among all types of people residing in the metropolitan area.

The goals of DC MADS are to assess the extent of drug abuse, including alcohol and tobacco, among varied populations in the area; to assess the negative effects among the populations and to the area; and to develop a methodological model for similar types of research in other metropolitan areas.

There are 16 separate studies, 11 of which are population based. Several of the studies focus on specific hard-to-reach populations, such as the homeless and transients, the institutionalized, school dropouts, pregnant drug users, criminal and juvenile offenders, and users recently entering treatment.

The project scope includes descriptive and analytical epidemiology to determine the prevalence, incidence, causes, and consequences of drug abuse and the risk factors for drug abuse among different populations; the parameters of the illegal drug trafficking industry; the costs to society; the characteristics of drug users; health, occupational, and social effects; and passive barriers to treatment.

Data sources include interviews, self-administered questionnaires, hospital records, and focus groups. In order to gain access and support, DC MADS has involved representatives from the community, such as law enforcement, health services, hospitals, and advocates of various groups.

Fieldwork is to begin in spring 1991, and the project is expected to be completed in 1992.

Speaker: Nancy Kennedy, Dr.P.H.

The Border Epidemiology Work Group (BEWG) is a recent addition to NIDA's Epidemiology Surveillance Program. A primary NIDA mission is to determine the

nature and extent of drug abuse in the entire United States. NIDA monitors trends by examining both survey and indicator data at the State, metropolitan, and community levels as well as other information derived from ethnographic studies.

The Community Epidemiology Work Group (CEWG) was established in 1976 as the primary method for drug abuse surveillance. CEWG is the vehicle for drug abuse researchers from related metropolitan areas of the United States to share and discuss data and the context of data collection. Originally, CEWG was a city-based program in 16 cities. Currently there are 20 permanent members including some from State agency programs. CEWG tracks trends, identifies outbreaks and potentially emerging problems, and monitors consequences of drug abuse. The CEWG's agenda has evolved to identify innovative assessment methodologies and attempt to monitor and standardize data and data presentation.

A wide range of data is collected within the United States, but not enough addresses subgroups. One subgroup is the population on the United States/Mexican border. The people living along the border are more comparable to each other than to their respective national populations. It is probable that problems on one side of the border are likely to affect the other side. Data would be useful to test this hypothesis and to assist in deciding on the appropriate allocation of prevention and treatment resources.

As a first step, a study is being conducted to identify the availability of survey and indicator data on both sides of the border and to establish a BEWG modeled on CEWG.

5.25 NIDA Data Collection Systems

Moderator: Edgar Adams, Sc.D.

Speaker: Susan Schober, Ph.D.

A series of questions on marijuana and cocaine use was added to the 1991 National Health Information Survey (NHIS). The purposes of the supplemental questions include the following: (1) determining lifetime, past year, and past month prevalence of marijuana, cocaine, and crack cocaine use, and patterns of use; (2) determining lifetime and past year prevalence of symptoms of dependence and use among those using; (3) determining the prevalence of marijuana and cocaine dependence in the past year; (4) examining the association of a history of use in the past year with patterns of use; and (5) measuring the association of these measures with health-related measures obtained in the core questions of NHIS. The NHIS data are obtained from a national sample through personal interviews with household members. The supplemental questionnaire is completed by a household member privately, with the interviewer present to assist as needed.

The core questions cover matters such as disability days, physician visits, acute and chronic conditions, and long-term limitations of activity resulting from chronic disease. The supplemental portion includes alcohol use; prescription drug use with and without a doctor's prescription; history and patterns of marijuana, cocaine, and

other drug use; and symptoms of marijuana and cocaine dependence. The DSM-III-R criteria are used to establish dependence.

The survey provides data regarding treatment needs and the association of dependence and patterns of use from a broad-based population group. It also allows for examination of the association between marijuana and cocaine use and health-related measures from the core part of NHIS. More specific information will be important for messages in drug prevention programs.

Speaker: Janie B. Dargan, M.S.W.

The Drug Abuse Warning Network (DAWN), an ongoing survey which began in 1972, is conducted in hospital emergency rooms and medical examiners' (MEs) offices. About 500 hospitals and 120 MEs participate. Relevant information is extracted from existing medical records. Among the data collected are the circumstances involved in the drug abuse incident, reasons for taking the drugs, the cause and manner of death in ME cases, whether the drugs were a direct cause of the incident or a contributing factor, identity of drugs involved, and the form in which the drugs were acquired or found at the scene.

To qualify as a DAWN case, the reason for hospital visit or death must be induced by or related to drug use. To be reportable it must involve nonmedical use of a legal drug or use of illegal drugs for which the reason for use was for psychic effect, dependence, or suicide.

The purpose of DAWN is to monitor health consequences associated with drug use. The data are not an indicator of the number of drug users but of those experiencing health problems as a result of use. DAWN provides early warning indicators, monitors types of drugs being abused, identifies who the users are, and supplies information surrounding the incidents. With the data, practitioners can plan treatment interventions based on trends in certain drugs as well as among population groups.

Speaker: Joe Gfroerer

The National Household Survey on Drug Abuse is the primary source of data on drug abuse prevalence in the United States. This random sample of household members aged 12 and older covers the use of all types of illicit drugs, alcohol, cigarettes, smokeless tobacco, and the nonmedical use of prescription drugs. The questionnaire is self-administered with an interviewer present to assist if needed. Major survey changes planned include expanding the sample size in selected metropolitan areas and in the national sample. The survey will become annual starting in 1990 and quarterly in 1992. The target population will expand to include all civilian, noninstitutionalized persons. The 1990 survey results show a continuing decline in the use of illicit drugs from 1985 to 1990.

The survey results can be used in treatment and prevention planning in various ways. For example, variations among subgroups suggest those which could benefit, information on age of first use suggests age groups to target, and perceived harmfulness of use helps direct advertising campaigns. Limitations and cautions of using the data, such as characteristics of certain groups, may bias the data; self-

reported data may be underreported; and, finally, the data do not yet include the institutionalized populations or the homeless.

Speaker: Lloyd Johnston, Ph.D.

The annual Monitoring the Future Survey, which began in 1975, addresses the causes and consequences of drug use among high school and college youths. The surveys begin with high school graduating classes, and followup studies are made of the groups each year. The earliest group has reached age 32. The survey is adding 8th- and 10th-graders and will, thus, include dropouts in future reports.

The survey found that drug use is down for the class of 1989, although most students still use alcohol and cigarettes. Daily marijuana use is 3 percent and daily use of other drugs is less than 1 percent.

Drugs differ in the tendency of youths to discontinue use. Sixty-three percent of inhalant users have quit, but only 9 percent of alcohol users and 19 percent of smokers have quit. The proportion of youths using *any* drug in their lifetime shows a smooth decline, but individual drugs show different patterns. There is a sharp decrease in current use.

Today youths are half as likely to use drugs as a decade ago. There has been a considerable decrease in marijuana use as well as in depressant and hallucinogen use. Cocaine use is down overall, but the powder form accounts for the sharp decline; crack use has been fairly constant since 1986. Alcohol use is declining gradually among youths. However, declines in other drugs are greater so alcohol use stands out for the media to report. Marijuana is reported to be easy to get, but use has declined. This is attributed to an increased perception of the risk of use. The supply of cocaine has increased, but use has not changed much. The reason for constant use amid increased supply is attributed to a sudden change in the perceived danger of experimental and occasional use in 1986.

Supply reduction is not the fundamental or perhaps even a contributing factor to the improvements. The improvements are almost entirely due to a change in demand. Understanding the dangers also has been pivotal.

Speaker: Edgar Adams, Sc.D.

All of the studies discussed have been ongoing for several years. The systems are in place, and their use is clear in looking at changes over time, measuring consequences of drug abuse, and estimating treatment needs and resources. NHIS will look at associations between use, health events, and health care system utilization and will identify target groups for messages. Missing populations need to be understood, but their contribution to the overall situation should not be overestimated.

There is a paradox. Many people think that the problem is getting worse, but the surveys show it is getting better. The media is reporting the visible consequences, not the prevalence, and so it contributes to the impression that the drug problem is worsening. The problem is serious but improving.

5.26 Drug-Free Workplace Programs—Essential Elements and Critical Issues

Moderator: Jeanne G. Trumble, M.S.W.

Speaker: Jeanne G. Trumble, M.S.W.

NIDA has assembled a four-part videotape series on drugs in the workplace, divided as follows: (1) an overview, (2) Employee Assistance Programs (EAPs), (3) drug testing, and (4) prevention and education. These tapes are available through NCADI.

During the first part of the session, attendees viewed the first tape in the series. The tape presented comments of former drug users and other examples to illustrate the many costs of drug abuse to society. It also reviewed efforts to address the problems stemming from drug abuse and some of the experiences with drug-free workplace programs. This particular tape series has proven to be extremely effective with employees, who readily identify with the series' message.

Speaker: James Lipari

A 1986 Executive Order directed each Federal agency within the Executive Branch to develop a comprehensive program to address drugs in the workplace. The goal of this effort is to achieve drug-free Federal workplaces through a program designed to offer drug users a helping hand by identifying them, making personal counseling and treatment available to them, and returning them to the workplace as healthy, responsible employees.

In response to the Executive Order, a comprehensive drug-free workplace model was developed for the Federal workplace. The model provides for (1) a written policy statement, (2) an EAP, (3) supervisor training, (4) employee education, and (5) drug testing. In addition to a discussion of the agency's philosophy about drugs in the workplace, the policy statement should cover components 2 through 5, above. The following brief discussion summarizes these remaining components.

EAPs should provide for counseling and assessment of personal problems and referral of employees to community resources for help. The EAP, through the delivery of training, can and should integrate itself within the organization. The assurance of employee/counselor confidentiality is essential to ensure program acceptance by employees. Programs should provide for both self-referral and referral by supervisors.

Supervisor training is necessary to provide each supervisor with the requisite management "tools" needed to exercise their full range of personnel management authority, including their authority in the EAP area. Supervisors need to be familiar with the drug-free workplace policy, the EAP, and how the EAP relates to other personnel programs such as discipline, performance appraisal, and awards. Further, supervisors should be trained to identify and document unacceptable performance and to confront problem employees about poor work/conduct. Supervisors also need to be aware of their role as a facilitator in employees' reintegration to the workforce/workplace.

Employee education addresses the negative health consequences associated with drug abuse, the symptoms of drug abuse, and the effects of drug abuse on performance. Employees must be told how to use the EAP, what the employer's policy is on drugs at work, the supervisor's role in the policy, and what to expect of the drug-testing program, should one exist.

Drug testing must be done on a carefully controlled and monitored basis. Its primary purpose should be to provide a method of identifying drug abusers so that they can be counseled by the EAP, referred for appropriate treatment, and subsequently restored to the job as productive workers. Drug-testing categories include applicant testing, testing based on an accident or unsafe practice, testing based on a reasonable suspicion that an employee is under the influence of a drug, testing of employees following their return to work after successful rehabilitation, voluntary testing, and random testing of employees.

Speaker: Judith Galloway, J.D.

In 1986 Executive Order No. 12564 directed each Federal agency to develop a comprehensive program to achieve a drug-free workplace for Federal employees. It is unequivocal in stating that Federal employees must refrain from the use of illegal drugs; that employees' use, whether on or off duty, is contrary to the efficiency of the service; and that persons who use illegal drugs are not suitable for Federal employment. Order 12564 called upon each agency to develop a program to test for the use of illegal drugs by employees in sensitive positions; permitted an agency to test in the case of an accident or unsafe practice, based on reasonable suspicion of drug use, as a followup to treatment, and for applicants. The Order also required agencies to provide testing for all those who volunteer.

In 1987 Public Law 100-71 placed certain conditions on drug testing of Federal employees by requiring that the Secretary of the DHHS set comprehensive standards for all aspects of laboratory drug testing and laboratory procedures. The law also requires that the Secretary use the best available technology, ensure the full reliability and accuracy of drug tests, and set strict procedures governing the chain of custody of specimens collected for drug testing. The standards must state the drugs for which Federal workers can be tested; scientific and technical standards also must be set for drug testing and for the certification of laboratories which conduct drug tests of Federal workers. On April 11, 1988, these standards were published in the *Federal Register* under the title "Mandatory Guidelines for Federal Workplace Drug Testing Programs." These guidelines allow Federal agencies to implement the testing component of their drug-free workplace programs.

In 1988 the Department of Transportation (DOT) published regulations which impacted approximately 4 million private-sector employees regulated by the 6 separate subagencies within DOT. While there are some distinctions between the regulations of the six transportation modes, they all require the testing of persons in safety-sensitive positions as part of a comprehensive program addressing drugs in the workplace. In 1988 the Department of Defense required defense contractors to institute and maintain a program for achieving the objective of a drug-free workforce, including a requirement that certain contractors' employees be tested for use of illegal

drugs. The 1988 Drug-Free Workplace Act requires Federal contractors and grantees to provide a drug-free workplace, but it does not require drug testing.

Legislative interest regarding drug-free workplaces is continuing. Many States have enacted laws related to employee drug testing. Most States restrict employee drug testing in some way. Only one State has enacted provisions generally viewed as encouraging drug testing. In Congress two bills have been given considerable attention: H.R. 33 and S. 1903. Each would preempt State and local laws and establish a single standard for drug testing and for laboratory certification, and each would provide some protection for employees. Similar bills are expected to be introduced in the next session of Congress.

5.27 Facilitating Communication Between Researchers and Community-Based Programs

Moderator: Mary L. Westcott, Ph.D.

Speaker: Mary L. Westcott, Ph.D.

A recent article on barriers to utilizing information in alcoholism research said, "Our research is impeccable, our approaches to treatment as creative and as effective as any other approaches, our theory development careful and thoughtful. Unfortunately, our work is invisible." This session will talk about some of these barriers as well as improving communication between researchers and practitioners.

A new 3-year NIDA technology transfer effort will develop 12 technology transfer packages that will include a range of mechanisms to transfer research results to the field.

The brochure "NIDA Technology Transfer Support Project: Bridging the Gap Between Research and Practice" describes NIDA's technology transfer project in more detail:

> The NIDA Technology Transfer Support Project is one of several important initiatives undertaken by NIDA to bridge the gap between the substance abuse researcher and clinician to ensure that new findings about effective approaches to treatment will be put into practice. The purpose of this three-year contract is to build knowledge in the field and ultimately to improve treatment practices, by developing and implementing materials and programs designed to facilitate changes in treatment programs that reflect the most current knowledge of what treatment approaches work best. The three-year project is being conducted in three general phases, which will be repeated each year: (1) Assessment; (2) Development; and (3) Delivery, Development, and Feedback.
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> Assessment activities will include a comprehensive review of the literature, telephone interviews with researchers and practitioners, (both administrators and clinic staff), focus group sessions with researchers and practitioners, and site visits to treatment programs.

Based on the findings of the assessment, and the decisions made by NIDA, technology transfer packages will be developed and tested. These "packages" will address specific goals or purposes, and will include a variety of the materials needed to facilitate achievement of the goal. Thus, they could consist of a multimedia set of materials aimed at different segments of the target population. Based on the decision of the NIDA Project Officer, selected topics will be addressed through a clinical reports series.

During the delivery, development, and feedback phase, materials will undergo testing on the target population, and will be revised accordingly. This phase also will include development of distribution channels for delivering the packages—that is, an organized system for disseminating the products, and the provision of training and technical assistance to support their use.

Some concerns that came out of site visits made by the contractor performing this study (Abt Associates) include: (1) a need for counselors to be trained to motivate family members to participate in client rehabilitation and to identify constructive ways they can participate, (2) a need for counselors to be trained to deal with sexual issues in counseling, (3) a need for counselors to be trained to communicate with patients who are IV drug users or mentally ill, and (4) a need for counselors to develop skills to motivate clients to end treatment on their own. This is part of a large-scale technology transfer initiative being undertaken by NIDA to "bridge the gap" between the substance abuse researcher and the clinician.

Speaker: Thomas E. Backer, Ph.D.

There is a need to discriminate between information dissemination and information utilization. Researchers face the challenge of getting information out to practitioners and doing what is necessary to help practitioners consider the information, decide whether to use it, and then actually use it.

The Hispanic community has been especially hard hit by the AIDS crisis. According to the Centers for Disease Control, 13.2 percent of AIDS cases are Hispanics, who are only 6.4 percent of the population. NIDA has initiated a number of programs that could be adapted to Hispanic and other communities, but only through systematic promotion of technology transfer will research results both reach the communities and actually be used by them.

In cooperation with the Human Interaction Research Institute, NIDA has founded a technology transfer program directed at AIDS and drug abuse in the Hispanic community. The program's three objectives are: (1) to define the special circumstances of AIDS and drug abuse in the Hispanic community in cultural and psychological terms; (2) to define special needs for research and community demonstration programs on AIDS and drug abuse in the Hispanic community and relate those to NIDA's overall program; and (3) to define individual, group, and cultural values and behaviors that affect the technology transfer process in the Hispanic community.

The project began with a small group meeting in June 1989 in Los Angeles, California. In September 1990 a workshop was held in Washington, D.C., and 41 recommendations were made for further action. The recommendations fell into four areas: epidemiological knowledge gaps, treatment and prevention knowledge gaps, representativeness and opportunity gaps, and communication and coordination gaps.

The following seven strategies for promoting technology transfer were identified: (1) review and synthesis of research innovations to identify those having potential for transfer to the Hispanic community, (2) adaptation and packaging of research in terms most appropriate for Hispanic audiences, (3) review and synthesis of innovations emerging from community-based organizations, (4) translation and packaging of community-based innovations, (5) promotion of researcher to community-based organization communication for technology transfer, (6) identification of existing technology transfer in community-based organizations, and (7) development of new technology transfer strategies specific to the Hispanic community.

Speaker: Eunice Diaz, M.S., M.P.H.

Prior to organizing the September 1990 meeting, the Hispanic community felt that the individuals empowered with resources and technical assistance knowledge were not going to listen to the community-based level. There has been a wall between those in the trenches and those in institutional systems. The researchers got together with some fear and trepidation to look at ways to establish a continuing collaboration.

There was a lot of solidarity among the researchers because they thought they were bringing disparate issues together, and that there would be a lot of controversy. However, the issues were clearly along the lines of information and epidemiological gaps. Lack of representation was a key issue—being able to address different forums making decisions about the Hispanic community. This was particularly felt in the funding area. Hispanics felt unable to tap sources to benefit research and treatment development within the community.

There should be a community of academics, researchers, institutions and bureaucracies, people in community-based efforts, and persons with personal knowledge and experience in drug use. A series of opportunities is needed for involving people in a meaningful way. Technology transfer is a two-way street. Knowledge generates from the community to the agencies, institutions, bureaucracies, and researchers. Knowledge from researchers is then returned through involvement of a meaningful partnership.

Speaker: Harvey Landress, A.C.S.W.

Operation PAR is a Florida-based, large, multimodality agency that has been successful in bridging the gap between research and practice. The organization became convinced that, to interest researchers, it would have to aggressively pursue linkages with the research community. This has not come easily as the two "communities" usually are widely separated. Additionally, there are wide vocabulary gaps between academic and nonacademic communities. Applications for research

grants are different from those for service grants. Also, there are differing perspectives, vocabularies, and knowledge bases that must be brought together.

Service agencies tend to be broader in their search for funds than research institutions. Areas outside of NIDA, NIAAA, and NIMH, such as the Departments of Justice, Labor, Defense, and Commerce, go beyond traditional thinking on sources. There also can be difficulty in identifying who is the applicant and who is the grantee when agencies are involved with researchers.

Congress rightfully asks the institutions what is happening to Federal money and how it is being applied. This is an important accountability issue. Traditionally, researchers do not create new treatment capacity. Treatment expansion is now a requirement of some funding, which is a new issue for researchers. Collaborative efforts can address these issues. Treatment community expansion is now a requirement of some funding, which is a new issue for researchers. Collaborative efforts can address these issues.

Investigators must be identified by the community-based groups but they rarely know how to do this. Good sources for identifying researchers are NIDA, the National Institute of Justice, and the Department of Education. ADAMHA has prepared a list of current and past research funding which identifies principal investigators and is available to anyone. This funding can be helpful to community-based groups.

Researchers need to identify what is available in the community. This can be done through the Single State Agency (SSA), which is the source of block grant funding that comes into the community by way of cities, counties, or nonprofit organizations. Some State offices have a list of licensed programs and facilities in the public sector. The Yellow Pages lists private agencies. The United Way is another source of information about local programs.

Research design must be a two-way street. Community-based agencies are overwhelmed at first by research design requirements, especially if a random assignment with a control group design is selected. Funding sources must be more open to alternative designs because of treatment agency requirements. The responsibility for writing the grant application is another issue. Who will write which portions of the application? There also is a potential for conflict between the long-term objectives of researchers and providers, but these are not incompatible. Mechanisms must be established to address differences or conflicts at early stages, and there must be a specific method to address differences or conflicts that cannot be resolved at the project level.

Collaborative efforts must be pursued. Future funding both for treatment and prevention and for research depends on the ability to "marry" researchers and community providers.

Speaker: Wayne Thacker

Every State has an SSA to receive block grant funds and probably also to manage State funds for alcohol and other substance abuse services. Some States have separate agencies, some are combined with others. The SSA can be contacted to

advocate for project funds. The SSA has a responsibility to enhance communication between clinicians and researchers.

One basic concept is that examining treatment outcome and providing treatment are two closely related components of the same activity. However, many people look at them as separate things. Perceived differences between researchers and clinicians may be barriers to communication, e.g., clinicians treat, and researchers observe; one becomes a clinician through experience, a researcher through study; treatment is a practical discipline, research an academic one; and treatment results in something, research in a paper. Therefore, a vocabulary gap exists between these two groups; however, specific activities can reduce barriers between them.

The National Association of State Alcohol and Drug Abuse Directors compiled a list of studies in the States to help identify current activity. Current areas of activity include the following:

- Establishing internship programs with field placements for student-managed research projects in community-based programs;
- Actively involving practitioners in planning and implementing research projects;
- Establishing research grants requiring collaboration;
- Establishing incentives for universities to initiate applied research;
- Involving practitioners in the development of State and local research priorities;
- Developing forums for exchanges between researchers and practitioners emphasizing the translation of research into practice;
- Establishing technical assistance centers at universities that work with local community-based programs; and
- Establishing a Student Research Award in Virginia to encourage the development of researchers with an interest in alcohol and drug abuse and to promote additional treatment research.

5.28 RURAL ALCOHOL AND DRUG ABUSE PROGRAMS

Moderator: Thomas Burns, Ph.D.

Speaker: Thomas Burns, Ph.D.

There is a language problem in discussing issues, not only between disciplines, but also between rural Americanism and institutionalism at the Federal level. If we look at Hispanics, African Americans, and Native Americans as having problems arising from their different perspectives, we have to add rural Americans.

The Indian Health Service (IHS) provided 157,000 individual services to persons in 1985 and 386,000 individual services in 1989. Between 1987 and 1989 the

number of persons in alcohol and drug abuse treatment increased 184 percent among those under 13 years of age and 90 percent among those between 13 and 19. Prevention and information activities increased 81 percent between 1987 and 1989.

In 1987 IHS had the authority to pick up and provide continued services to tribal programs dealing with alcohol only. The Anti-Drug Abuse Act of 1986 added the authority to provide prevention services for youth to IHS' authority to provide adult services. Through the Anti-Drug Abuse Act, IHS is authorized to develop one regional youth treatment center per IHS area. IHS also is authorized to provide community education and training at the tribal level, to extend into aftercare activities, and to purchase adult treatment for families of youth admitted to the regional treatment centers.

Major objectives for Fiscal Years 1991 and 1992 include establishing a primary care provider training program, developing a new information system, and conducting a major conference to examine the past 5 years' experience and to project for the next 5 years.

Marijuana use is a serious problem among Native Americans. IHS sees an increase in cocaine use, although cocaine use is reported to be decreasing generally. Inhalant use is said to be a problem among Native Americans, but inhalant users are not getting into the IHS programs.

Speaker: Carol Conner, Ph.D.

Most Indian tribes are in rural areas, and rural people have a lot in common with tribes. When consulting with tribes, the first step is to assess needs through a formal or informal process. The tribe's size is an important consideration. Tribes are independent governments, and it is important to understand these governments. Where there is a tribal court system, it must be understood. It is necessary to know about the tribal government's ability to plan for the future. It also is essential to know whether high-level political persons in the tribe have unaddressed problems and to know what programs and services are available to the tribe.

Tribes want hands-on services, not theory. Direct clinical services and consultation are necessary. Tribe preferences vary on the amount of research wanted. Some tribes have "information" about the causes of drug and alcohol abuse, e.g., genetic predisposition. Education must be placed in the context of hands-on services, treating each consultation as a training case. Results must be produced. Both rural people and tribes are receptive to this approach.

Speaker: Larry Monson, M.S.S.W.

About 65 million people, one-fourth of the U.S. population, live in rural America where there are many problems. A recent University of Michigan study found that adolescent drug and alcohol abuse rates in rural America are twice as high as the national average. Depression in rural America also is twice the national average. The rates of child and spousal abuse are increasing along with suicide ideation and suicides. Thirty-eight percent of those who live in poverty live in rural America; 67 percent of the substandard housing is in rural areas. As health care and doctors

leave, increased maternal and child mortality, accidental deaths, and chronicity of existing problems are anticipated.

There are seven cultural characteristics of rural Americans: rootedness, independence, a close support system, privacy or keeping problems to oneself, limited communication, parochialism, and traditionalism. These characteristics are both positives and negatives for providers.

Networking is essential in rural community organizations. With good communications, development of comprehensive prevention programs may be easier in rural areas because everyone joins in. Less than 30 percent of the people know what services are available. The primary media mode is radio; public service announcements over TV are not being received.

Model programs do exist and are being developed. Rural models should be showcased at conferences. Federal agencies need to talk and think about rural communities.

Speaker: Cathy Wasem, M.N., R.N.

The Office of Rural Health Policy (ORHP) was created in 1987 to address the failing hospital situation and the chronic shortage of health personnel in rural areas. One key purpose is to determine the effects of medicare and medicaid on access to health care. Access to substance abuse services in terms of medicaid has not been examined yet. The office tends to concentrate on primary health care providers and has not looked at other allied fields and substance abuse practitioners. The office supports seven rural health research centers, but only one has begun to look at substance abuse issues.

ORHP has two new programs. One provides funds to create or expand State Offices of Rural Health. Most of those in existence were created with emphasis on primary health care, and now there is a chance to get substance abuse on the agenda. The other new program is a Rural Health Outreach Grant Program, which includes mental health and substance abuse services.

Other ORHP programs include three Bureau of Health Care Delivery and Assistance programs. These provide a substance abuse initiative to coordinate substance abuse services at the local level and to provide services, development of curricula for training primary health care providers, and grants for the homeless with substance abuse components.

The Bureau of Health Professions provides training grants for residency programs and for physician assistants' programs. Many have funds to develop curricula and training programs in substance abuse. The Bureau also supports area health education centers providing continuing education for primary care professionals and substance abuse professionals in rural areas.

The Maternal and Child Health Bureau has funding for pregnant women at risk for substance abuse.

There are real issues in terms of AIDS. The incidence of AIDS increased 37 percent in nonmetropolitan areas, compared to a 5-percent increase in areas with a population of more than 1 million. Also, the General Accounting Office reports that

the rate of substance abuse in rural areas almost equals the rate in urban areas, but funding is weighted toward urban areas.

5.29 Legislative Issues in Drug Abuse

Moderator: Joel Egertson

Speaker: Joel Egertson

Twenty years ago, Public Law (P.L.) 91-616 authorized the creation of NIAAA; P.L. 92-255 authorized the creation of NIDA. This year marks 20 years of Federal, State, and local partnership in community response to drug and alcohol abuse. Therefore, it is fitting to discuss current legislative issues in drug abuse.

Speaker: Ronald Weich

S. 2649, which sought to improve delivery of services, both by changes in the organization of ADAMHA and by setting some conditions on the States for block grant money, failed to pass last session, but the agenda is being carried forward.

This year the reauthorization of ADAMHA activities, including NIDA, NIAAA, and other programs, is on the agenda. A key reauthorization issue is how much Federal money should be spent on treatment and the division of funds among programs. An increased authorization is expected in substance abuse treatment funds, but the final amount will be determined by the appropriation.

It is within the jurisdiction of the Labor and Human Resources Committee to shape the mission of various agencies, including whether ADAMHA should remain a research-based agency and whether treatment-based agencies such as OSAP and OTI can better meet their objectives.

Major policy issues with respect to ADAMHA reauthorization include:

- With respect to its mission, the House sees a move toward a service orientation while the Senate is reluctant to move that way.
- Is Federal money best presented in the form of block grants or through categorical programs funded directly?
- Are Federal funds to continue to be directed more to the larger, more urban States or redirected to address the growing drug and alcohol problem in rural areas?

Congress will look to target some particular key needs such as maternal substance abuse, treatment within the criminal justice system, the development of pharmacotherapy, and how best to involve the private sector.

Speaker: Jim Kulikowski

In the past, funding was decided on the merit of the programs. Increasingly, funding is being backed into from overall budget figures. In theory, figures for domestic programs have been decided on for the next 5 years, and it looks like there

will be a $9 billion increase in domestic program funds. However, most of the increase seems to have been eaten up already so funds will be tight. The only escape from the overall ceiling for domestic programs is two consecutive quarters of recession. With the budget deficit, a rush of spending is not expected, but antidrug programs with job-creating aspects may be successful.

Under the 302b process, 13 subcommittee chairmen allocate the overall amount available to the departments. Until allocation is done, arguments can be made for interdepartmental changes. However, following allocation of funds, only individual programs within a department can be addressed. Line item amounts are determined largely by historical levels and the President's budget request. Factors involved include politics, success of the program, need for the program, public demand for the program, and the priorities of members of Congress.

Drug abuse funding has increased steadily from $1 billion in 1981 to about $10 billion currently. There is some reluctance to continue the increase, but the Administration is likely to push treatment programs.

Some expected problems include whether the States have used block grant money effectively, whether research results are being brought into practice quickly enough, how well prevention programs work, and whether treatment improvement programs contribute effectively to desired answers.

The case for treatment and research funding will be enhanced by treatment people and researchers working together both to validate the results of treatment and to put together strategies to show that research can be put into practice and give results.

Speaker: Robert Balster, Ph.D.

There are two fundamental strategies to try to impact the appropriations process. First, work with your own contacts, especially those who happen to be on relevant committees. Second, work through professional societies, especially those focused in narrow areas or having sufficient staff to so focus.

It is important to pay attention to what Congress thinks should be done with the money. As an example, a new area of interest is medications development. An aspect to address is the need for funding research into the use of medications developed.

The regulatory area also must be impacted. Animal welfare legislation, for example, has caused large cost increases and other deleterious effects on research. It is important to try to impact the way a bill gets enacted and the final language of regulations.

Speaker: Ken Eaton

The Sentencing Project reports that the United States is now the world leader in rate of population behind bars. This says something about the decisions made in the past decade that were expected to reduce crime rates by harsher penalties and incarceration. That broad public policy is gaining the opposite of what was expected. The debate needs to be reshaped.

The War on Drugs is the biggest single factor in increased incarceration rates and arrest rates. A better alternative to deciding to implement massive prison expansion would be to spend resources on prevention, treatment, and education of drug users, including those who commit crimes. Alcoholics and drug addicts are massively represented in prisons, but there are few signs of involving them in substance abuse treatment within the criminal justice system.

While some interest and proposed legislation exist, officials at both Federal and State levels must be persuaded to deal with alcoholism and drug dependency as health problems. Current issues should not be disregarded, but some are not true national policy issues. We are responsible for changing the order and level of debate to more important public policy issues.

5.30 How Can Improved Science Education Help in Achieving Prevention and Treatment Goals?

Comoderators: Michele Applegate
Harold Jones, Ph.D.

Speaker: Sue Rusche, Ph.D.

One year ago, National Families in Action received an OSAP grant to develop a drug education curriculum for parents and children who live in public housing and to help them organize groups to prevent drug abuse in their communities. Bankhead Families in Action in Bankhead Courts was established to train members of the group as community drug-education specialists. The curriculum entitled *You Have the Right to Know* was developed.

This project coincides with another National Families in Action project to create the Body Guard, an interactive computer drug-education program for fifth- and sixth-grade children. Both projects are based on providing a scientific understanding about how the brain and body function and how drugs interfere with that functioning.

The curriculum explains how some transmitters regulate the body's organs, others regulate the senses, still others control aggression, etc. The curriculum then focuses on dopamine, the transmitter most affected by cocaine. Once the material is taught, students are organized into small work groups to develop other analogies to explain brain functions and cocaine interference. The students learn the material and then teach it to others, including school children and addicted mothers in treatment.

The Body Guard is an interactive computer program that will use animated graphics to show children what happens in the brain and the body with the use of drugs. It is hoped that the Body Guard will be available by the end of the year.

Speaker: Harold Douglas Holder, Ph.D.

Often it is forgotten that learning is the function of science and that all of us function as scientists as we learn through life experiences.

It is important to learn what is happening in our communities. Many young people wrongly believe that there is widespread use of alcohol and drugs among their peers and that, consequently, such conduct is acceptable even though they themselves

are not users. The real picture of drug and alcohol abuse needs to be portrayed to young people. Television entertainment, for example, depicts alcohol as the most commonly chosen beverage, whereas the most commonly chosen beverage is actually water. In addition, the news media, as the primary source of information on community problems, may present an inaccurate picture by emphasizing or deemphasizing a particular problem.

A second issue is a natural antithesis between program designers and managers and evaluation. Many designers and managers feel that evaluation is forced on them and that no useful information is received from evaluations. Designers and managers must work with scientists to ensure the generation of useful information.

Speaker: Elaine M. Johnson, Ph.D.

Part of the rationale for having science education as part of OSAP programs is that it has been shown that adolescents' knowledge of neurobiological aspects of drug use affects their choices regarding use: when they perceive the harmfulness of drug use, they are more likely to choose to avoid it. The effect is most noted with respect to cocaine and marijuana.

Incorporating science education in prevention efforts takes advantage of adolescents' natural curiosity, and science education suggests a possible career path toward science.

Programs to create teacher awareness, interest, and participation are encouraged by OSAP. It is desirable to use science teachers to help assess the curricula and to suggest changes. Scientific accuracy is essential to prevent alcohol and drug abuse. The programs must be appropriate for the targeted age group and be culturally relevant. Incorporation of science education into current programs can enhance and provide support to the prevention goals of particular programs.

Among the programs funded by OSAP are ones pairing medical students with young people for purposes of information, guidance, and friendship. The Learning Community Program brings together grantees and practitioners to share information, and a science education portion is to be added to this program. A national training program is in place, and plans are underway to add a science education component. Finally, grants of up to $50,000 are provided for conferences related to the OSAP mission, including those related to science education.

Speaker: Beny Primm, M.D.

It is easy to understand the sociological aspects of substance abuse because they can be seen by everyone. However, the biomolecular aspects are harder to understand because of the limited scientific knowledge of most people. It is essential to impart the scientific aspects to people.

Nothing has been more effective than the antismoking campaign, and the success of that campaign is due to scientific education. In this area, the education program was directed toward children and adults and was a sustained effort in many forms. The same type of effort is needed for drugs; the constant bombardment with messages that characterized the antismoking effort is required. Scientific education

regarding HIV also suffers from a lack of sustained effort. There has been no followup to the Surgeon General's mass mailing, for example.

One valuable program provides scientific education to school children through the publication *Science Weekly* which is written at multiple levels of complexity as appropriate to the targeted age groups. This introduces children to science at an early age.

Young physicians need to be attracted to the field of drug treatment as a career rather than as a temporary activity. One pilot project assigned 12 minority medical students to drug treatment programs in their home or school communities for a period of 7 weeks. The results of the program were positive, and plans are to expand the program to include nurses, social workers, nurse practitioners, physician assistants, and clergy in similar education efforts. Another goal is to bring together the various national organizations to share information.

A number of points were emphasized in the discussion following the presentations, including the following:

- Science education is needed at the elementary- and middle-school levels because decisions regarding drug and alcohol use are made at these levels;
- The scientific education of adults is an important area that needs to be addressed;
- Teachers must be trained, or the material will not be used;
- A massive education program is needed for women who constitute the segment of the population most vulnerable to HIV and other sexually transmitted diseases; and
- It is essential to examine the scientific material being used with respect to both what is included and what is omitted.

5.32 African American Women and HIV/AIDS

Moderator: Donna Simms d'Almeida, M.U.S.

Speaker: Donna Simms d'Almeida, M.U.S.

HIV infection and AIDS affect certain minority groups in the United States more than the majority, non-Hispanic, white population. Blacks and Hispanics bear a disproportionately larger share of the burden. Of the cases reported to the Centers for Disease Control by March 1990 for which race was reported, blacks and Hispanics accounted for 42 percent of the total number of cases; 70 percent of the cases involved women. Blacks and Hispanics have higher exposure rates due to IV drug use by heterosexuals. Black women were exposed as a result of IV drug use (57.8 percent) and through sexual relations with infected IV drug users (18.2 percent). Consequently, African American women have a serious problem, and targeting efforts are needed to help this segment of the population.

Speaker: Martha Ann Carey, Ph.D.

Health professionals and policymakers need to understand that the face of HIV/AIDS is changing. HIV/AIDS is not just one epidemic as originally thought, but is composed of many subgroups. As those diagnosed as HIV positive live longer, their needs change.

Military and nonmilitary personnel from the Army, Navy, Air Force, Walter Reed Army Institute of Research, and the Uniformed Services University of the Health Sciences (USUHS) make up the Military Medical Consortium for the Advancement of Retroviral Research. The USUHS-funded BioPsychoSocial HIV Study focuses on the development of an information base that is being used to improve clinical services and to design, implement, and evaluate intervention programs that will improve or prevent transmission, exposure, and disease progression.

The study population is similar to the general population of this country in that most of the people who are HIV positive are from the traditional social system. Generally, they are not IV drug users due to the military's stringent policy on drug use. The military's unannounced mandatory drug screening has resulted in a reduction in the drug problem since Vietnam. Mandatory screening provides for early recognition of HIV status and early intervention. The result has been better patient care management.

If a person is identified as being HIV positive, the person is given a comprehensive evaluation including psychiatric, psychosocial, and medical testing. The "staging" process is provided for patient followup. As opposed to just diagnosing AIDS, the evaluation allows gender differences in HIV-infected individuals to be studied.

Preliminary findings of self-reports show that African American women present themselves as slightly less depressed, less lonely, and more hardy than other women. There also is some evidence that they are less suicidal. Efforts are currently underway to include more women in the study.

Speaker: Sandra Driggins-Smith, L.S.W.

Project REACH is a NIDA-funded, HIV risk-reduction intervention for females and sexual partners of IV drug users. The project, which focuses on African American women not in drug abuse treatment, has seen about 1,600 clients in its 2½-year history.

Access to the communities in which at-risk women live was essential to implementing the project's goals. Access was achieved by collaborating with local African American organizations to gain permission and establish trust. After avenues were developed to start the project, indigenous outreach workers, some in recovery, and a supportive and "listening" staff set to work. The second step was to find out where the target population of women could be found. Places like laundromats and preschools at dropoff and pickup times were targeted.

Project REACH has three structured self-enhancement sessions: "Lunch With Sandy," "Brag & B---h," and "Each One-Teach One." During the first session, women talk about what's going on in their lives and receive support about AIDS risk

reduction. The second session focuses on reinforcing the strength they already have and promotes self-esteem and self-empowerment. Participants teach the newcomers the skills they have learned in previous sessions such as the correct way to put on a condom. Invitations for each of the sessions are sent as a reminder. The women have the option of continuing in a support group after completing the three structured sessions. The project is concerned about violence in the lives of women who participate and the lack of "on demand" treatment centers.

Speaker: Ravinia Hayes-Cozier, M.Ed.

Decisions that policymakers make today will determine the state of this epidemic and its impact on this Nation 5 to 10 years from now. We already have suffered due to misdirection and inattention to issues surrounding women, particularly those of color.

AIDS is the leading cause of death in New York City for women aged 25 to 34 and for men aged 25 to 44. About 3,500 women have been diagnosed with AIDS and thousands more are HIV positive. African American women are the hardest hit. HIV has had a devastating effect on the city's policies, hospitals, communities, and people.

The main transmission route of the disease is IV drug use. The large existing pool of infected people in New York City increases the probability of HIV reaching heterosexual people, particularly sex partners of IV drug users who are mostly minority women.

Nothing short of a national prevention education campaign directed toward women, especially African American women, is needed. The strategy needs to be mindful of the messages it sends out. The messages must be clearly written, culturally sensitive, and look beyond HIV. Women should not be treated as a generic group or be seen as vectors because many women today choose not to bear children. Emphasis also needs to be placed on women and families in the community.

The toll of HIV on women is great and will continue to be great unless different approaches are taken to allow African American women to determine what works for them. Traditional methods must be set aside for creative ones. AIDS forces us to choose who and what we wish to be in our society. May we have the wisdom and courage to choose correctly.

Speaker: Andrea Barthwell, M.D.

The role of Interventions is to educate women who are not infected about HIV/AIDS, to exert influence to prevent the spread among those not HIV positive, and to provide psychological support to those living with AIDS. Last year 18 percent of the women who came to the central intake unit had a zero prevalence rate compared to the usual 14 percent. This indicates that the rate of transmission is changing in Chicago, Illinois.

AIDS is a disease of young people—88 percent of the cases involve people between 20 and 49 years of age. People do not die of HIV per se; they die because they have dysfunctional T-cells which are the conductors of the immune cells. While there are other isolated modes of transmission, accepted modes include sexual

behavior, blood, and infected needles. Current thinking is that not only is the presence of the virus necessary to transmit the disease, but also the amount of infection one is exposed to impacts the likelihood of getting HIV.

Patients, physicians and other treatment providers, and institutions pose barriers to the care of the chemically dependent person. Some African American women are reluctant to seek help, withhold information, or do not comply with treatment parameters. Health care professionals suffer burnout or choose not to work in high-risk areas. Physicians have a self-injury bias against people who use drugs and may not treat HIV-infected people. Many medical schools lack training to service people infected with HIV. Institutions' rules set mainstream medicine apart from treatment for chemical dependency and HIV.

A number of things can be done to resolve these problems including the following: training medical-related staff to work with people infected with the virus, training people to do outreach, providing medications for people who cannot afford them, implementing culturally sensitive and gender sensitive materials, employing comprehensive case management, increasing medical care, implementing family-oriented and legal counseling, educating the community, providing technical assistance to community-based programs, supporting frontline workers, offering free support groups, and offering respite care for the families who often care for the patients' children.

Poster Sessions

6.01 Operation PAR

Presenters: Shirley Coletti
Nancy L. Hamilton, B.A.
Harvey Landress, A.C.S.W.

6.03 TASC—Treatment Alternatives to Street Crimes

Presenter: Ken Robertson

6.04 Stay'n Out Criminal Justice Program, New York

Presenter: Ron Williams

6.05 Diagnostic Interviewing

Presenter: James Langenbucher, Ph.D.

6.06 Attracting and Retaining Patients: Training To Improve the Quality of Methadone Maintenance

Presenter: Paul Purnell, M.S.

6.07 An Expanded Framework for Cost-Effectiveness Analysis

Presenter: Robert Hubbard, Ph.D.

6.08 Interim Methadone Treatment

Presenter: Nina Peyser, M.B.A.

6.09 High-Risk Youth Prevention/Intervention Project

Presenter: Lonnie Mitchell, Ph.D.

6.10 Treatment in the Criminal Justice System

Presenter: Nicholas Demos, J.D.

6.11 Target Cities Grant Programs

Presenter: Walter Faggett, M.D.

6.12 OTI's Treatment Improvement Exchange

Presenters: Richard J. Bast
Renee Moore

6.13 Contemporary Issues in the Treatment of Chemical Dependency Among African American Youth

Presenter: Donnie Watson, Ph.D.

6.14 Alcohol/Drug Prevention Program: A Model for Campus-Oriented Programs

Presenter: David L. Terrell, Ph.D.

6.15 Epidemiology—Life History of Convicted Felons/Drug-Related Violence

Presenters: Mario De La Rosa, Ph.D.
Paul Goldstein, Ph.D.

6.16 National 800 Hotline

Presenter: Maure Hurt, Ph.D.

6.17 Health Insurance Coverage and Drug Abuse

Presenter: Albert Woodward, M.B.A., Ph.D.

6.19 OSAP "Be Smart/Don't Start"

Presenter: Robert Denniston, M.A.

6.20 Adolescent Transitions Program: A Secondary Prevention for At-Risk Middle School Youth

Presenter: Thomas Dishion, Ph.D.

6.21 Technology Transfer Methods

Presenters: Elaine Cardenas, M.B.A.
Paul Mahanna, M.S.

6.22 Case Management for HIV-Positive Drug Users

Presenter: Virginia McCoy, Ph.D.

6.23 Federal Linkage and Integration Linkage

Presenter: Claude Reeder

6.25 A Neurobehavioral Model of Outpatient Cocaine Treatment

Presenter: Richard Rawson, Ph.D.

6.26 Relationship of Psychopathology to AIDS Risk Behavior

Presenter: Robert M. Malow, Ph.D.

6.27 Creating Community Alliances

Presenter: Ronald Brinn, M.A.

6.28 Female Adolescent Drug Abuse: Biobehavioral Development

Presenter: Ada C. Mezzich, Ph.D., M.I.S.

The following poster sessions were not presented:

6.02 Urban Lifestyles Project

6.18 Manual on Research Utilization

6.24 Soledad Enrichment Program

Roundtable Issues Luncheon

7.01 New Medications Development

Facilitator: Betty Tai, Ph.D.

7.02 Effective Use of Assessment Tools

Facilitator: Frederick Rotgers, Psy.D.

7.03 How to Reach At-Risk Drug Abusers and Significant Others

Facilitator: Harvey Siegal, Ph.D.

7.04 Organizational Response and Staff Development for Changing Client Populations

Facilitator: D. Vincent Biase, Ph.D.

7.05 How HIV Impacts Treatment Programs

Facilitator: Gerald Soucy, Ph.D.

7.06 AIDS and Drugs in the Workplace: Privacy and Confidentiality Issues

Facilitator: Alan Emery, Ph.D.

7.07 Networking for Community Education on Drug Abuse and AIDS

Facilitator: Leona Ferguson

7.08 Applying Epidemiology for Prevention and Treatment Planning

Facilitator: James N. Hall

7.09 Drug Testing as a Preventive Deterrent

Facilitator: John Carver, J.D.

7.10 Involving Communities in Drug Prevention Activities

Facilitator: Donna Simms d'Almeida, M.U.S.

7.11 Alcohol and Drug Prevention Media Campaigns

Facilitator: Nellia Nadal, M.P.H.

7.12 Innovative Prevention Messages Through the Communication Grants Program

Facilitator: Nancy Chase, M.S.

7.13 Office for Substance Abuse Prevention Communications Grant Program

Facilitator: Edna Kane-Williams, M.A.

7.14 Establishing Drug-Free School Zones

Facilitator: Severin Sorensen, M.Phil.

7.15 Drugs and Adolescent Pregnancy

Facilitator: Marianne Felice, M.D.

7.16 Managing Programs for Substance Abuse Pregnant and Post-Partum Women

Facilitator: Adele Roman, M.S.N.

7.17 Violence in the Lives of Women Drug Abusers

Facilitator: Susan Salasin

7.18 Women and Cocaine

Facilitator: Barbara Eisenstadt, Ph.D.

7.19 Examining African American Cultural Differences as They Relate to Drug Abuse

Facilitator: Garry A. Mendez, Jr., Ph.D.

7.20 Hispanics: Cross-Cultural Issues in Alcohol and Other Drug Prevention Programs

Facilitator: Ana Anders, M.S.W.

7.21 Traditional Native American Concepts in Combatting Alcoholism/Drug Abuse

Facilitator: Delmar Boni, M.Ed.

7.22 How to Begin Working With Asian American Drug Abusers

Facilitator: Davis Ja, Ph.D.

7.23 Gay Issues in Recovery

Facilitator: Robert J. Kus, R.N., Ph.D.

7.24 Women's Programs in the Prison Population

Facilitator: Naya Arbiter

7.25 Chemical Dependency in the Probation Setting

Facilitator: David Wilson, M.Ed.

7.26 Tips on Obtaining Public Funds

Facilitator: Christine Chen

7.27 Foundation Funding—Questions and Answers

Facilitator: Pat Rosenman, Ph.D.

8.01 SECURING FUNDING. PART A: PUBLIC

Moderator: Rebecca Ashery, D.S.W.

Speaker: Howard Manly

Established by Congress in 1986 and further supported by the Anti-Drug Abuse Amendment of 1988, OSAP has three grant programs: (1) the High-Risk Youth Program to decrease drug abuse and risk factors for youth, their families, and their environments; (2) the Pregnant and Postpartum Women and Their Infants Program to increase the proportion of healthy births and decrease maternal substance abuse and its effect on small children; and (3) the Community Partnership Program to reduce drug and alcohol use among children and adolescents and to formalize public and private endeavors to reduce substance abuse in the workplace.

OSAP communications initiatives include NCADI, the Regional Alcohol and Drug Awareness Resource (RADAR) network, cooperative agreements, and media campaigns such as "Just Say No." Another OSAP initiative is the National Training System which updates community workers' (including physicians) training in alcohol and drug abuse problems and trains instructors in an effort to increase access to populations at risk. The OSAP Conference Grant Program promotes the exchange and dissemination of information. Currently underway is a mandated structured evaluation of the outcomes of Federal, State, and local programs and prevention education projects.

Other possible OSAP activities are the development of private-sector and foundation collaboratives, promotion of local coalition building, documentation of findings generated by local prevention projects using state-of-the-art communication technology, further development of programs to address perinatal addictions, establishment of relationships with AIDS programs, and increases in coordination and linkage with agencies involved with substance abuse prevention. The prevention arena thus offers many challenges for prospective OSAP grantees.

Speaker: Rebecca Ashery, D.S.W.

OTI, with its function being to expand access to treatment and improve treatment effectiveness, will focus on two major themes during the 1990's—community linkage systems and linkage of primary health care with substance abuse treatment. OTI's largest endeavor is the $1.2 billion State Block Grant Program, which funds new and existing treatment programs. Most discretionary grant funds are distributed through OTI's Division of Treatment Resources Development to expand and improve existing treatment programs only. Although most grant applications must be made through States, which will administer the funds, each is reviewed on its own merits by an outside review committee. One of the largest of the 80 OTI programs now funded with $25 million is the Critical Populations Program which targets racial and ethnic minorities, adolescents, and residents of public housing; new funding for Fiscal Year 1991 is $8.8 million, approximately $4 million of which will be used for programs

in or adjacent to tenant-managed housing programs. New grant announcements will include a systems approach to serving adolescents (adjudicated and nonadjudicated) and programs to expand or enhance treatment programs in prison settings in States which have formal plans for incorporating treatment programs into their prison systems. OTI also funds the Target Cities Program which includes the cities of San Juan, Baltimore, Boston, Milwaukee, Los Angeles, New York's Bronx, Albuquerque, and Atlanta. The Target Cities Program focuses on a comprehensive community approach to treatment which may include central intake and linkages with social service and health care agencies. In the recently funded Waiting List Program, 64 projects with waiting lists of 1 year or longer were funded to expand treatment services. The States are expected to assume the expense for Waiting List projects after the funding year is over.

OTI's Substance Abuse Linkage Initiative will soon set up substance abuse treatment programs in the primary care system. Regional consensus conferences will also culminate in a national conference in Washington (September 1991) and a 1992 demonstration grant program. The Substance Abuse Counselor Training program, the prime contractor of which is the National Association of State Alcohol and Drug Abuse Directors (NASADAD), is seeking vendors in all DHHS regions to train people that have backgrounds ranging from G.E.D.s to M.S.W.s who are not accredited in chemical dependency and have less than 3 years in the field.

Speaker: Bill Butynski, Ph.D.

In addition to the resources discussed above, a broad spectrum of Federal programs fund antisubstance abuse efforts. These include ACTION special volunteer prevention demonstration grants, DHHS Office of Minority Health community coalition projects to support the health and human service needs of minority males, Health Resources and Services Administration AIDS demonstration program grants, OHDS' youth gang drug prevention programs, and other prevention and program assistance within NIDA, NIAAA, and OSAP. The Veterans' Administration and the U.S. Department of Defense also are a significant source of funds, although these funds are not usually available as grants to communities.

Applicants for funding should begin within their own States: all block grants must be approved by State alcohol and drug agencies and their State governors and legislators and submitted through them for Federal funding. States differ by sources and spending of dollars. During Fiscal Year 1989, 37 States provided the bulk of funding; while in 9 States, most of the funding was from Federal block grants; in the remaining 4 States, other sources of funding were highest. No State expends as much funding for prevention as for treatment services.

The primary drug abused by patients admitted for treatment is alcohol (more than 1.2 million alcohol admissions versus fewer than 600,000 admissions for other drugs). First use of cocaine may be decreasing, but cocaine admissions are increasing by about 50 percent per year and may continue to increase to 500,000 by 1991. NASADAD estimates that the number of IV drug abusers is about 1.5 million. Although 240,000 to 250,000 IV drug abusers are admitted annually for drug abuse treatment, this constitutes services for only about 20 percent of those needing

treatment. Within 5 years, the number of HIV-infected IV drug users could exceed 500,000.

Over the past 5 years, State funding for programs to combat substance abuse problems has been increasing regularly. Growth in Federal block grant expenditure of appropriated funds also is increasing but will stabilize unless Congress approves increases. All but one State have increased total dollar expenditures, some as much as 900 percent.

Combined alcohol and other drug treatment agencies now constitute more than 62 percent of funded treatment facilities. Units which treat only alcoholics or only other drug-dependent persons are expanding their services to treat both addictions in response to both client needs and funding source requirements.

Speaker: Shirley A. McKenney

The profile of a proposal and what it says about the expertise and reliability of the investigator is crucial in convincing a review group of the overall merit of a proposed project. Potential applicants should consult the *Catalog of Federal Domestic Assistance* and program announcements from agencies beyond those covered by NCADI such as the *NIH Guide to Grants and Contracts.* Essential elements of grantsmanship include the following:

- Communication with the applicant's own institution to be sure goals and regulations are met and followed by communication with program officials at the funding agency (e.g., NIDA Grants Management Office) to ensure name recognition as well as the appropriate mechanisms of proposed projects to particular programs.
- Preparation including full review of relevant literature (which should be articulated in the proposal) and discussion with others in the field before writing the proposal and setting forth both long-range goals and short-term plans.
- Discussion of anticipated results and the long-term benefits of the project, writing first for the science but taking into account potential reviewers (consult the *Public Advisory Reference Book* for review committees and indicate in cover letter suggestions for appropriate reviewers or reviewers with conflicts of interest).

Agency assistance is available for completion of the PHS 398 application packages required for most ADAMHA or NIH grants (State and Federal block grants excepted). PHS applications are available through NCADI. Since reviewers can consider only what is written in the proposal, applicants should provide complete background information, full descriptions of staff and institutional qualifications, facilities, and all other sources of support as well as full justification of detailed budgets (including annual changes), documentation of collaborative/consultative agreements, and accurate literature references. Allowing ample time for proposal preparation and proofreading carefully will help eliminate costly mistakes. Once an

application has been submitted, alerting agency staff to the application also may be helpful.

Speaker: Jim Schuster

Government Information Services, a private-sector Washington publisher, has produced a comprehensive reference source to alert individuals and organizations to funding opportunities for antidrug programs. The *Guide to Federal Funding for Antidrug Programs* identifies and tracks funding in the areas of treatment and rehabilitation, prevention education, research, and law enforcement/juvenile justice. The 1,000-page compendium lists sources for $4 billion by agency—from the U.S. Departments of Education, Justice, Labor, and Transportation to the Bureau of Indian Affairs and Federal volunteer programs through ACTION as well as drug-free workplace requirements and State justice institutes.

The guide includes information on eligibility criteria, uses of funds, application deadlines, procedures, restrictions, legislative and regulatory citation information, and contact individuals. For $192, subscribers also receive a quarterly report on new Federal Government sources and noteworthy events in the drug abuse field (in looseleaf form for updating the guide) and a weekly newsletter to continue tracking funding sources listed in the *NIH Guide to Grants and Contracts*, the *Federal Register*, and the *Commerce Business Daily*. This presentation seeks to make those in the drug abuse field aware of the availability of the *Guide to Federal Funding for Antidrug Programs* not to necessarily endorse Government Information Services.

8.02 SECURING FUNDING. PART B: PRIVATE

Moderator: Pat Rosenman, Ph.D.

The scope of this workshop will be limited to private philanthropic foundations as potential funding sources for the research and delivery of alcohol and drug abuse programs. In the recent past foundations' investment in the alcohol and drug abuse field has increased because of the pervasiveness of these problems in their communities.

Speaker: Loren Renz

According to *Giving USA*, U.S. charitable giving totaled about $114 billion in 1989 with 6 percent ($6.5 billion) from foundations, 5 percent from corporations, and the balance from individuals. Of some 30,000 foundations, most of which are small, 500 to 600 accounted for approximately one-half of the funds distributed in 1989. Foundations generally function independently; however, there are now about 300 community foundations, and some foundations have joined in cooperative funding ventures. Instead of direct funding, corporations frequently offer help via technical and managerial assistance, space, or in-kind gifts.

A Foundation Center study of 470 representative (but mostly larger) foundations between 1983 and 1987 and a smaller 1989 survey found that just under 1 percent of their funding was for alcohol and drug abuse prevention, treatment, education of

health professionals, applied and biomedical research, and public policy. Funding within the total health arena (24 percent of all foundation giving), medical care, public health, and mental health doubled over the past 5 years because of AIDS, a crisis with implications for substance abuse programs.

Between 1983 and 1987 total foundation giving to antisubstance abuse programs increased from $9 million to $25 million, compared with Federal Government spending, which increased from $428 million to $950 million. During the period of public funding cutbacks (1981 to 1986), foundation giving increased. Two-thirds of all grants, representing nearly one-half of these foundation dollars, went to intervention or treatment programs; 36 percent, to prevention. Most large capital funding grants for treatment facilities (many connected with existing hospitals) had been redirected to programs by 1987, when the largest share of treatment funds was devoted to residential programs, followed closely by other medical treatment (e.g., detoxification and hospital outpatient services). Counseling and referral, including social services and aftercare, received the smallest share albeit the most grants (average grants, $51,000, $43,000, and $22,000, respectively). Prevention dollars exceeded treatment funding for the first time in 1987.

Many funders give only to programs in their own States and communities. Foundations see substance abuse as an issue that affects their communities in many ways. Although their interests may have traditionally been in children and youth and other special populations, they now are becoming responsive to substance abuse because of the risk to families and the community. The relationship between the multiple problems (e.g., family preservation) of these special populations and the diversification of efforts (e.g., prevention, early intervention, and aftercare, as well as treatment) are appealing to foundations' interest in giving assistance where it is needed to improve the community.

Foundations do not see themselves as a substitute for public funding. They are wary of supporting basic services that they perceive to be public responsibility. However, foundations want to see maximal results for their gifts, and their requirement for measurable impact, i.e., accountability, may translate into willingness to support diverse, multifaceted programs targeted to populations of interest, perhaps also to program evaluation research, with its potential for far-reaching effects. Programs seeking support should first research the history of each potential funder—its record of giving and all interconnected areas of interest.

Speaker: Molly Coye, M.D., M.P.H.

Foundations differ from Government agencies in that often they can do what government cannot do or cannot do well. Their goal is to make a difference. They may be interested in applied research because of their frustration with increased public spending for problems that are getting worse. Because their comparatively small size dictates their stress on impact, foundations may support small projects that can affect the way huge sums are spent in State, regional, or national programs.

The National Academy of Science's Institute of Medicine (IOM) report on treating drug problems (September 1990) is a credible source for grant applicants on the state of knowledge and extent of the problem. Its documentation of what has

been implemented and its analysis of what needs are most urgent can help alleviate skepticism. A touchstone for forward-looking applicants and foundations alike, it defines a research agenda that can verify the importance of proposed projects. The IOM expert panel concluded that a key problem in expending Federal dollars to best support substance abuse prevention and treatment efforts is the difficulty of coordinating and integrating the overlapping areas of responsibility of Government agencies. The IOM document affirms that while much is known about the efficacy of antisubstance abuse treatment, there are deficits in research on women, adolescents, and mixed substance abuse as well as insufficient evaluation research. Analysis of public policies is critical.

The implications are strong for foundations' support in building bridges to connect programs, academia, and Government agencies at all levels to conduct interdisciplinary research—an essential element in the operation of programs and the delivery of services. Foundations should be asked to support research analysis and the dissemination of results to people who run programs. The identification, further development, and promotion of effective models that should be replicated would eliminate the lag between demonstration projects and the implementation of program improvements. Another area of opportunity for positive impact by foundations is encouraging cooperation between policymakers, program planners, and researchers to ensure that research becomes an integral part of substance abuse programs.

Managing a myriad of approaches to alleviating multidimensional substance abuse problems under the Federal umbrella is difficult. Community foundations may be able to convene people in various fields, from both agencies and recipient communities as well as advocacy groups, to develop an activist research agenda that, based on IOM findings, could redesign policies and provide more effective programs.

Conference Dinner

Dr. Charles R. Schuster opened the dinner and described the conference as "absolutely dynamite" from NIDA's viewpoint. He then requested that the audience stand for a moment of silence for our national leaders, the military, and their families who were facing the Persian Gulf crisis.

Speaker: Frederick K. Goodwin, M.D., *Administrator, ADAMHA*

Much has been accomplished in the War on Drugs, but much more needs to be done. A working alliance between the research community and the treatment and prevention community is essential. ADAMHA and NIDA, via this conference, continue to link research with the delivery of research products in treatment and prevention.

The treatment and prevention community needs the research community because the knowledge base is its legitimacy and path to destigmatization. The treatment and prevention community also needs researchers to establish what works, develop new treatments, and provide materials for practitioners that enhance prevention efforts by showing young people scientific evidence of the damage of drugs.

The research community needs the treatment and prevention community because it is the source of research's best ideas. The treatment and prevention community can identify gaps, help design important research that is methodologically sound and relevant to real problems, and work as a partner in field trials. Most importantly, the treatment and prevention community is the most important defender and explainer of the research community to the public. To win the War on Drugs, these communities must be united.

Speaker: Constance P. Horner, *Deputy Secretary, DHHS*

This is a very significant conference. The speakers are remarkable for their caliber and for their breadth of understanding. The response from the antidrug community shows an understanding of the need to push forward in the battle against illicit drug use—our most serious domestic problem.

Secretary Sullivan was unable to attend the conference but sent the following videotaped message:

> The participation of attendees is appreciated. It is difficult for practitioners to find time because their first priority is to their clients. It is also difficult for researchers because their first priority is to find solutions to the drug problem. The conference provides an opportunity for the two communities to share the results of what works in preventing and treating the very complex phenomena of drug abuse and to identify promising areas for future investigation. The coming together of research and practice must be a goal for the future. A continuing dialogue between scientists and practitioners is critically important if we are to reach our ultimate goal of eliminating drug dependence throughout our society.

The underlying theme of the conference is that of continued commitment. The conference is timely—while there is conflict in the Middle East, the battles at home also are important. Many citizens have watched dealers destroy, pillage, and invade their neighborhoods—millions live in fear of the violence and terror. Citizens are increasingly demanding that this come to an end. We have started to mobilize communities and have discovered the strength of working together.

Recently the Department announced some good news. The 1988 National Household Survey on Drug Abuse showed a stunning decline in drug use. Since the 1988 survey there has been a 45 percent decrease in the rate of current cocaine use in all age groups, and the number of current cocaine users is down from 5.8 million in 1985 to 1.6 million in 1990.

The results indicate that we have begun to turn the tide. The consistent and repeated messages delivered in family discussions, schools, community prevention programs, religious and social initiatives, workplace programs, and media campaigns are working. But as long as any drug use remains, we cannot become complacent.

The commitment of the President, Secretary Sullivan, and this Administration will continue to be strong. This Administration has worked diligently to develop and implement a National Drug Control Strategy. Our fiscal commitment has grown substantially. In the coming fiscal year, the President will again ask Congress for the resources necessary to make further progress.

A fiscal commitment underlines a staunch determination by President Bush, Secretary Sullivan, and this Administration to reclaim our homes, schools, neighborhoods, and worksites from drug users and dealers. With your help and the help of your State governments, churches, private organizations, and so many others, we are firmly committed to ending the demand for drugs, making treatment widely available, and providing the research necessary to address treatment needs.

The antidrug campaign will never be measured simply and solely by a barrage of statistics and figures. The War on Drugs is fought, measured, and won or lost one individual at a time. Drug use is a personal struggle with national consequences.

In our increasingly secular world, do not overlook two important factors in the War on Drugs—faith and hope.

Faith is a strange, curious, and embarrassing notion for many of our opinionmaking elites. They view any discussion of religious faith as socially and intellectually unacceptable. We must remember that, for many, religious faith is a vital component in recognizing a drug problem and in finding the inner strength to overcome drug addiction. In fact, religious faith can be decisive in drug treatment.

We need to recognize and not ignore or derogate the power of religious belief in overcoming drug addiction. We must not discount it or avert our gaze from it. We must overcome our hesitation to consider religious faith as a source of strength for those confronting a drug problem.

According to the Roman historian Pliny the Elder, "Hope is the pillar that holds up the world." And so it is. Without the feeling that life can be more rewarding tomorrow, many of us could not make it through the tribulations of the moment. Hope may be the emotional lifeblood of man. Without nurturing and satisfying this most human of needs, we may never, ever conquer drug addiction in our society. We

must offer drug users hope at every turn, the kind of hope that can motivate and inspire the user to leave the world of drugs for a world of better health and honest human connection.

Speaker: Herbert D. Kleber, M.D., *Deputy Director for Demand Reducation, Office of National Drug Control Policy*

As you have heard throughout the conference and from tonight's speakers, we are beginning to see significant decreases in illicit drug use. The Office of National Drug Control Policy feels that the decrease is the result of strong national strategy and the commitment of the President, Congress, Federal and State governments, individuals on the frontline like yourselves, and others at the local level.

The media, however, continues to show a bleak picture, reporting increases in violence and drug-related crime. We must be aware that drug-related violence is not a measure of the prevalence of drug use. Violence is driven by a number of factors. If the police move a dealer off of a street corner, the dealer moves to another corner where there is already a dealer. A turf fight results among people used to settling conflicts with guns and violence. The better the police are at disrupting the market and the fewer buyers, the more competition there is for turf. We will continue to see that a decrease in drug use is not connected to a decrease in violence.

Although cocaine use will go down, heroin use is likely to increase. This is a matter of concern, especially in the number of teen-aged initiates and of those switching from cocaine to heroin. Thus far, the data does not show an increase in new initiates to heroin, but it does show an increase in people switching from cocaine to heroin. The prediction is that the increase in heroin use will be far less than the decrease in cocaine.

The significant downturns are not an accident. They will continue only with the continued support and work of this audience and your friends and neighbors in the communities.

Presentation of the 1991 Pacesetter Awards

Dr. Charles R. Schuster presented the 1991 Pacesetter Awards to the following honorees:

Dr. Vincent P. Dole, Professor and Senior Physician Emeritus at Rockefeller University in New York, was recognized "For Pioneering Research on the Use of Methadone in the Treatment of Heroin Addiction." Dr. Dole, in collaboration with his late wife, Dr. Marie Nyswander, proved that heroin addicts could be regarded as patients with a chronic metabolic condition that can be treated medically with methadone.

Karst Besteman was recognized "For Enduring Contributions to the Development of the Federal and Private Sector Response to the Drug Problem." Mr. Besteman served in several key positions including as Deputy Director of NIDA, before retiring from Federal service. At NIDA, Mr. Besteman helped construct the Institute's broad role in drug abuse treatment, research, prevention, epidemiology, and training.

Dr. Gerald Friedland, of the Montefiore Medical Center in New York, received the Pacesetter Award "For Innovative Research on the Relationship Among Drug Abuse Treatment, Medical Care, and AIDS Prevention and Epidemiology." Dr. Friedland and his associates, Drs. R. Klein, P. Selwyn, and E. Schoenbaum, have been leaders in research on the natural history of HIV in IV drug abusers.

The Media-Advertising Partnership for a Drug-Free America was recognized "For Creative Commitment and Leadership Contributing to America's War on Drugs." Over the past 3 years, the Partnership has produced half a billion dollars in donated time, space, and equivalent services to try to reach young people and adults with messages that deglamorize drug use in America. The Pacesetter Award was accepted by Thomas Hedrick, President and Executive Director of the Partnership.

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Session 5.09

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Session 1.03
Session 4.02
Session 7.04

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Session 5.02
Session 5.14

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No. (ADM)91-1818

Printed 1991